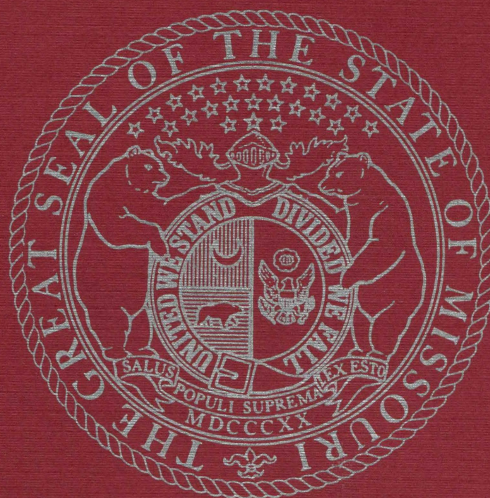


JAN 30 1990

Missouri State Employees' Retirement System

Component Unit Financial Report
Fiscal Year Ended June 30, 1989



Missouri State Employees' Retirement System

**Component Unit Financial Report
Fiscal Year Ended June 30, 1989**

**M. Steve Yoakum,
Executive Director**

**Gary Irwin,
Chief Accountant**

**Missouri State Employees' Retirement System
906 Leslie Boulevard
P.O. Box 209
Jefferson City, Missouri 65102
(314) 751-2342**

The state capitol building of Missouri was built during the period from 1913-1917 on a bluff overlooking the Missouri River at Jefferson City. At the top of the capitol dome stands the bronze figure of Ceres, goddess of grain. The statue symbolizes the state's agricultural heritage. The first capitol building in Jefferson City was completed in 1826 and destroyed by fire a decade later. A second building was completed in 1840 and destroyed by fire in 1911.

Introductory Section

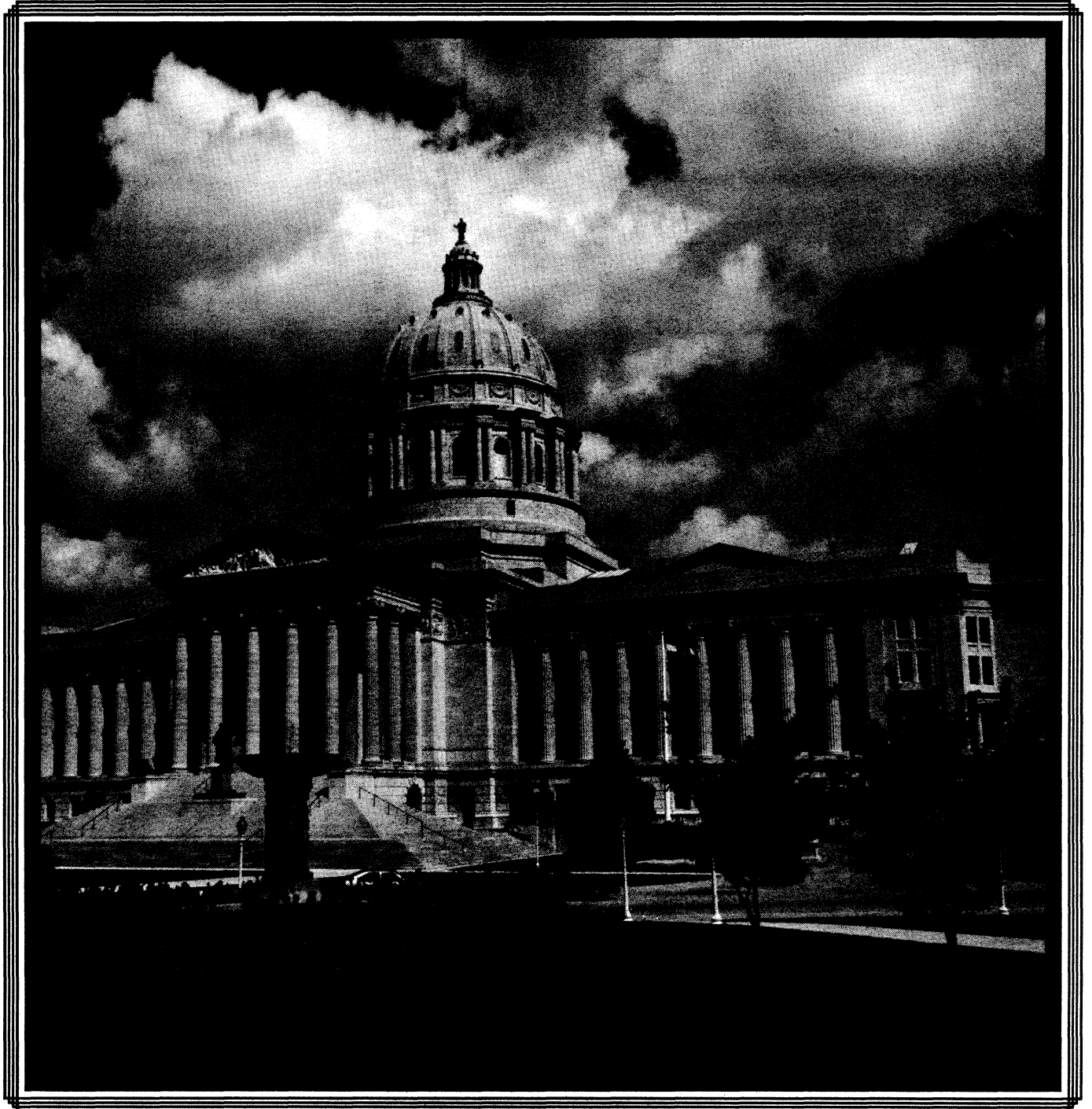


Photo Courtesy of the Missouri Division of Tourism

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Letter of Transmittal

October 14, 1988

The Board of Trustees
Missouri State Employees'
Retirement System
Jefferson City, MO 65101

The annual report of the Missouri State Employees' Retirement System (MOSERS) for fiscal year ended June 30, 1989, is submitted herewith. This comprehensive report is designed to comply with the provisions of Sections 104.480 and 105.661 of the Revised Statutes of Missouri (RSMo) as amended and includes the Retirement System's financial statements, summaries of the actuarial reports and statistical tables. We trust that you and the other members of the System will find this annual report helpful in understanding your Retirement System—a system which continues to maintain a strong and positive financial future.

Revenues

State contributions and investment income provide the reserves needed to finance retirement, life insurance, health and disability benefits. The MOSERS retirement contribution rate for fiscal year 1989 was 9.9 percent of the membership payroll as compared to 12.1031 percent for fiscal year 1988. Revenues for the retirement plans for fiscal year 1989 totaled \$218,159,240 and the insurance plans' revenues totaled \$84,796,161.

Expenses

MOSERS was established by state law in September 1957 to provide retirement benefits to qualified members and their beneficiaries. Later, life insurance, health and disability benefits were added. The cost of providing these benefits includes recurring benefit payments as designated by the plans, refunds of contributions to members, and the cost of administering the System. Expenses of the retirement plans amounted to \$61,409,424 while expenses of the insurance plans for fiscal year 1989 totaled \$76,990,349.

Investments

In accordance with the Revised Statutes of Missouri (RSMo), the Board of Trustees has established a policy which requires that the funds be invested in conformity with the "prudent person rule." The "prudent person rule" permits the fund to establish an investment policy based upon certain investment criteria and allows for delegation of investment authority to professional investment advisors. The statement of investment policy outlines the responsibility for the investment of the fund and the degree of risk that is deemed

appropriate for the fund. Investment advisors are to execute the investment policy in accordance with the statutory authority, the Board policy and their respective guidelines, but are to use full discretion within the policy and guidelines. The investment advisors retained by the Board are listed on page 12 of this report.

Funding

The MOSERS funding objective is to meet long-term benefit promises through contributions that remain approximately level as a percent of member payroll. The greater the level of funding, the larger the ratio of assets accumulated and the greater the investment potential. As evidenced in this report, MOSERS continues in excellent financial condition.

Professional Services

Professional consultants are appointed by the Board of Trustees to perform professional services essential to the effective and efficient operation of MOSERS'. The certified public accountants' report and the actuarial certification are included in this report. The consultants appointed by the Board are listed on page 12 of this report.

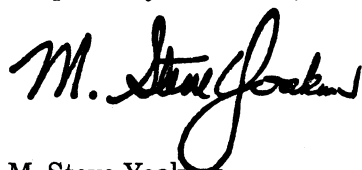
Acknowledgments

This report is a product of the combined effort of the MOSERS staff under the leadership of the Board of Trustees. It is intended to provide complete and reliable information as a basis for making management decisions, as a means of determining compliance with legal provisions, and as a means for evaluating responsible stewardship of the funds of the System.

This report is provided to the Governor, Auditor, the Joint Committee on Public Employee Retirement of the General Assembly and to all the state agencies. These agencies form the link between MOSERS and its members and their cooperation contributes significantly to the success of MOSERS. We hope the agencies and their employees find this report informative and useful.

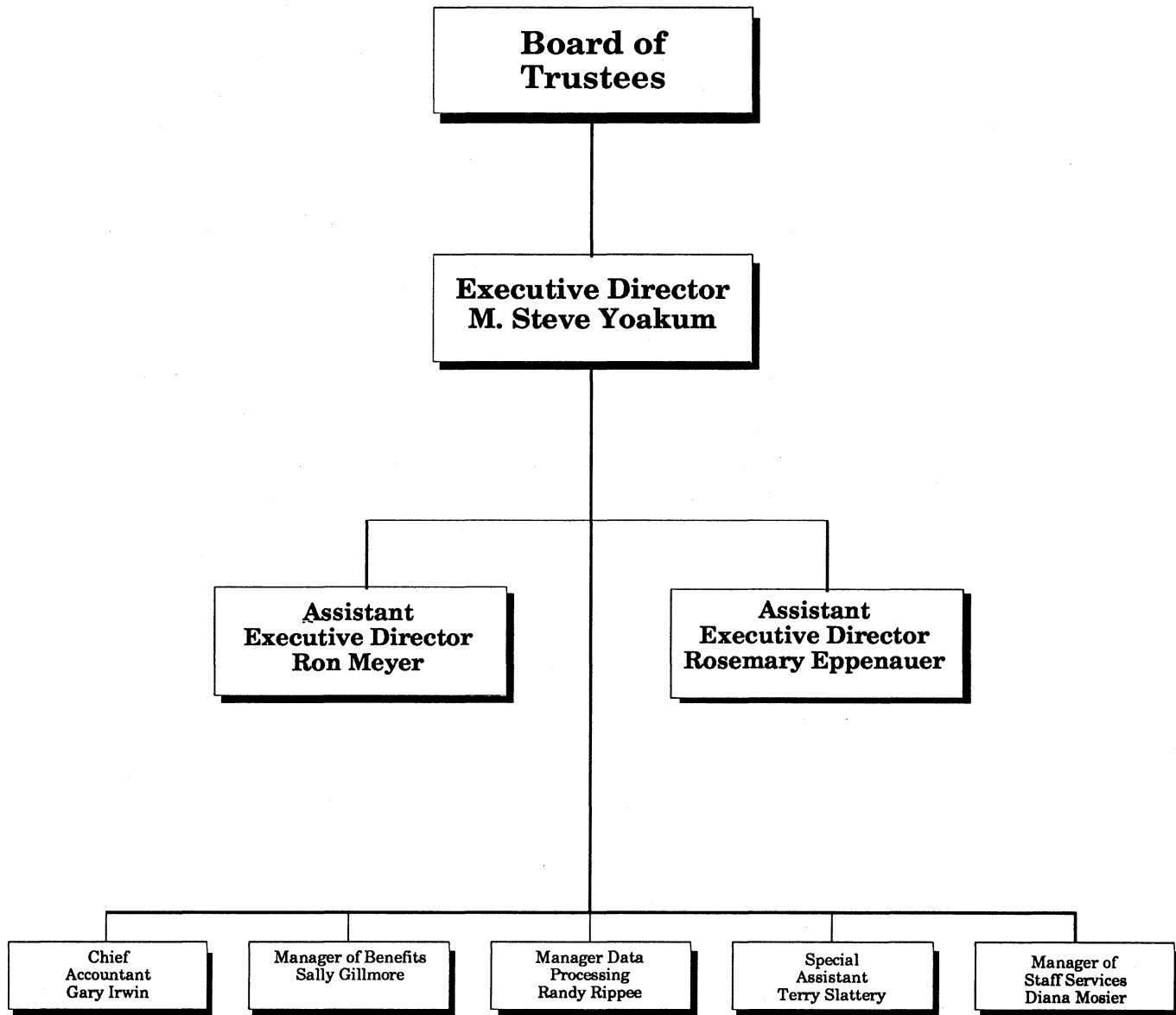
On behalf of the Board of Trustees, I would like to take this opportunity to express my gratitude to the staff, the advisors and to the people who have worked so diligently to assure the successful operation of the System.

Respectfully submitted,



M. Steve Yoakum,
Executive Director

Administrative Organization



Organization of MOSERS

The Executive Director and the Assistant Executive Directors are responsible for the operation of the MOSERS office. The Executive Director is accountable to the Board and works with the Board as well as with the actuaries, benefit consultants, the investment consultant and the investment managers. The MOSERS office has 46 employees and is divided into five sections.

❑ **Accounting**—Responsible for all financial records of the programs administered by MOSERS, including preparation of financial, statistical and investment reports. Accounting performs the purchasing function for MOSERS, as well as interfaces with the investment consultant, investment managers, Office of Administration Accounting, various payroll/personnel departments and accounting offices of Health Maintenance Organizations, life insurance companies, actuaries, banks and the IRS. The Chief Accountant is responsible for the accounting section.

❑ **Benefits**—This division is divided into three units: Benefit Specialists, Membership Records and the Insurance Team. Benefit Specialists are responsible for the administration of all aspects of the benefit program as it relates to members of the System including conducting educational meetings throughout the state. Membership Records is responsible for establishing and maintaining all records of MOSERS' membership, including files, preparation and verification of data entered into the computerized data base. The Insurance Team verifies any out-of-balances pertaining to monies expected for all insurance plans. They also generate and record all direct billing invoices. The Manager of Benefits is responsible for the benefits section.

❑ **Data Processing**—Using an IBM AS 400 computer, this section provides all computer and technical design support for MOSERS' programs. Data Processing is responsible for establishing and updating computer programs to implement plan changes. The Manager of Data Processing is responsible for this section.

❑ **Special Services**—Special Services analyzes legislation to determine the impact on MOSERS, initiates activities required to implement legislation, tests data processing programs, develops technical manuals, maintains an on-going communication program, and prepares and reviews contract and bid proposals. The Special Assistant to the Executive Director is responsible for this section.

❑ **Staff Services**—Responsible for providing clerical support for all Missouri State Employees' Retirement System personnel. The Manager of Staff Services also acts as secretary to the Board of Trustees and coordinates all the Board activities and serves as MOSERS' Personnel Officer. The Manager of Staff Services is responsible for the activities of this section.

Although each section performs different job responsibilities, all the employees of the Retirement System work together to better serve our members.

Board of Trustees

Gail Chatfield

Chairman
State Representative
House of Representatives Member
Term expires 12/31/90
Benefits Committee
Legislative Committee
Personnel Committee
Medical Care Plan Committee

Jane Bierdeman-Fike

Vice Chairperson
Director of Social Services
Fulton State Hospital
Elected Active Member
Term expires 12/31/90
Benefits Committee★
Personnel Committee
Medical Care Plan Committee★

Wendell Bailey

State Treasurer
Ex-Officio Member
Investments Committee
Budget/Audit Committee

Duane Benton

Director of Revenue
Governor Appointed Member
Term expires 1/9/93
Investments Committee
Budget/Audit Committee

Joseph Dietrich

Elected Retired Member
Term expires 12/31/90
Personnel Committee★
Benefits Committee

Chris Graham

State Representative
House of Representatives Member
Term expires 12/31/90
Legislative Committee★
Budget/Audit Committee
Medical Care Plan Committee

Jerry Hunter

Director of Labor and Industrial
Relations
Governor Appointed Member
Term expires 1/9/93
Investment Committee★
Personnel Committee

Ronald Larkin

Director of Operations
State Courts Administrators Ofc.
Elected Active Member
Term expires 12/31/90
Investment Committee
Benefits Committee
Legislative Committee
Personnel Committee
Medical Care Plan Committee

James Moody

Commissioner of Administration
Ex-Officio Member
Investment Committee
Budget/Audit Committee

John Scott

Senator
Senate Member
Term expires 12/31/90
Investment Committee
Legislative Committee

Richard Webster

Senator
Senate Member
Term expires 12/31/90
Budget/Audit Committee★
Benefits Committee
Legislative Committee
Medical Care Plan Committee

★ Denotes committee chairman.

Letter from the Chairman

October 1, 1989

Dear Members:

On behalf of the Board of Trustees, I would like to present the Missouri State Employees' Retirement System (MOSERS) Annual Report for the fiscal year ended June 30, 1989.

The system has had a "good year." Our earnings are still meeting or exceeding expectations. One of the Board's main concerns in the area of investments, as well as the return, is that we try to do business with Missouri-based companies. We hope that this not only will reward our System, but will be an economic development tool for jobs and increased revenues in Missouri.

In the past, in an effort to overcome the overwhelming rise in health costs, the Board adopted pre-certification and utilization review procedures. Most recently, co-payments and deductibles were increased. The Board adopted these cost-saving measures in an attempt to avoid further premium increases. MOSERS is only one of many in the industry that has resorted to these same measures.

Your Board of Trustees is dealing with many concerns, however, I assure you that the members have been the leading edge of the concern. We will try to the best of our ability to serve your needs now as well as in the future.

Sincerely,


Gail Chatfield, Chairman
Board of Trustees



Consulting Services

Actuary

Gabriel, Roeder, Smith & Co.
Richard Roeder
Gary Findlay
Norman Jones
Detroit, Michigan

Auditors

Peat Marwick Main & Co.
Certified Public Accountants
Philip Keipp
Karyn Molnar
St. Louis, Missouri

Investment Consultant

Callan Associates, Inc.
James O'Leary
Dennis Grether
Chicago, Illinois

Equity Investment Advisors

Alliance Capital Management Corp.
Thomas Perkins
San Francisco, California

CFW Management Co.

Steve Palmer
Kansas City, Missouri

Delaware Investment Advisors

Richard Unruh
Philadelphia, Pennsylvania

Investors Research

Stephen Barney
Rolling Meadows, Illinois

Shields Asset Management

Jay Carr
John Larkin
White Plains, New York

Real Estate Investment Advisor

Eastdil Advisors, Inc.
Richard Miles
San Francisco, California

Fixed Income Investment Advisors

Boatmen's Trust Co.
Robert Franklin
St. Louis, Missouri

Loomis, Sayles & Co.

John de Beer
Boston, Massachusetts

Wentworth, Hauser & Violich

Bradford Hall
Paul Violich
San Francisco, California

Venture Capital Investment Advisors

First Chicago Investment Advisors

Bart Holaday
T. Bondurant French
Chicago, Illinois

The Kirk Organization

Lary Kirchenbauer
R. Michael Allen
St. Louis, Missouri

Insurance Consultant

Towers, Perrin, Forster & Crosby
Stephen Jackstadt
Scott Blackard
St. Louis, Missouri

Medical Claims Administrator

August International Corp.
Bernie DiFiore
Dallas, Texas

Medical Plan Investment Advisor

Investment & Capital Management
Peter Morrow
Rolling Meadows, Illinois

Legal Counsel

Thompson & Mitchell
Attorneys at Law
Allen Allred
St. Louis, Missouri

Summary of Plan Provisions

The Missouri State Employees' Retirement System (MOSERS), established September 1, 1957, is governed by the statutes of the State of Missouri.

Purpose

MOSERS provides retirement, survivor, disability, life insurance and medical benefits to its members in the most efficient and economical manner possible.

MOSERS administers retirement benefits for most State employees, including members of the Water Patrol, members of the General Assembly and Elected State Officials. MOSERS is a non-profit entity which has the responsibility of administering the law in accordance with the expressed intent of the General Assembly and bears a fiduciary obligation to the State of Missouri, the taxpayers and the State employees who are its beneficiaries.

This is a summary of the provisions of the Revised Statutes of Missouri (RSMo) as amended that governs the programs which MOSERS administers. It does not amend or overrule any applicable statute or administrative rule, and in the event of a conflict, the applicable statute or rule would apply.

Administration

The statutes provide that the administration of MOSERS be vested in an 11-member Board of Trustees. The Board is comprised of:

- ✓ Two members of the Senate, appointed by the President Pro Tem of the Senate
- ✓ Two members of the House, appointed by the Speaker of the House
- ✓ Two members appointed by the Governor
- ✓ Three members of the System, two actives and one retiree, elected by the members
- ✓ The State Treasurer
- ✓ The Commissioner of Administration

The management of MOSERS is the responsibility of the Executive Director who is appointed by the Board and serves at its pleasure.

The Executive Director acts as advisor to the Board on all matters pertaining to the System and with the approval of the Board, contracts for professional services and employs the remaining staff needed to operate the System.

Retirement

Eligibility

Members who work in a position normally requiring at least 1,000 hours of work a year and who are not simultaneously accumulating Creditable Service under another retirement program supported by State contributions (other than social security) are eligible and required to participate in the Retirement Plan.

Unreduced Retirement Benefits

A member may retire with full benefits when he/she attains:

<u>Age</u>	<u>Years Service</u>
55	30 years
60	15 years
65	10 years
65	4 years*

*Must be retiring directly from active employment.

A member of the General Assembly may retire with full benefits when he/she attains:

<u>Age</u>	<u>Service</u>
55	5 biennial assemblies
60	3 biennial assemblies

Uniformed members of the Water Patrol may retire with full benefits when he/she attains:

<u>Age</u>	<u>Service</u>
55	10 years
55	4 years*

*Must be retiring directly from active employment.

Early Retirement

(Actuarially reduced)

Members of MOSERS may retire early with an actuarially reduced benefit at age 55 with 10 years of service. General Assembly members may retire early at age 55 with three biennial assemblies. Elected State Officials may retire early at age 55 with 10 years of service.

There are no early retirement provisions for uniformed members of the Water Patrol.

Benefit Formula

The benefit formula for members of MOSERS is 1-1/2 percent of the average of the highest 36 consecutive months of salary times the years of Creditable Service.

General Assembly members receive:

- ☐ \$80 x number of biennial assemblies (3 or 4 biennial assemblies) or,
 - ☐ \$105 x number of biennial assemblies (5 to 9 biennial assemblies) or,
 - ☐ \$130 x number of biennial assemblies (10 or more).
- Elected State Officials with less than 12 years of service as an

elected official receive 1-1/2 percent of the average of their highest three consecutive calendar years of salary times years of Creditable Service. Those officials with 12 or more years of service receive 50 percent of the statutory salary paid to the current elected official in the highest position which the retiree previously held.

Uniformed members of the Water Patrol receive 1-1/2 percent of the average of their highest 36 consecutive months of salary times years of creditable service. That amount is then increased by 33-1/3 percent to determine their normal retirement annuity.

Creditable Service

Creditable Service is a combination of the Creditable Prior Service a member has accrued before becoming a member of MOSERS and the years and full months of Membership Service the member has as a member of MOSERS.

Creditable Service is used in determining the amount of the member's benefit under the System.

Vesting is based on service which is recognized in determining the member's eligibility for benefits under the System.

<u>Service</u>	<u>% Vested</u>
5 years	50%
6 years	60%
7 years	70%
8 years	80%
9 years	90%
10 years	100%

Optional Forms of Payment

Retirement benefits are paid according to the election made by the member just prior to retirement. Members may choose a life income annuity and receive a full benefit with no survivor option or the member may choose a 50-percent or 100-percent joint and survivor option. If one of the latter are chosen the benefit is actuarially reduced, and upon the members' death the survivor receives either 50 percent or 100 percent of the member's reduced benefit.

Members of the Department of Conservation, General Assembly and Elected Officials automatically receive a 50-percent survivor benefit for service in those positions without an actuarial reduction in their benefit.

Members of MOSERS may also choose lifetime income with either 60 or 120 guaranteed monthly payments. If the member dies before receiving the payments, the beneficiary receives the remaining payments.

Cost-of-Living Adjustments

Retired members receive annual cost-of-living adjustments (COLAs) equal to 80 percent of the previous year's change in the Consumer Price Index (CPI) with a minimum of four percent and maximum of five percent of the monthly benefit received the previous year.

Members receive a cumulative maximum of 65 percent of their base benefit in cost-of-living adjustments.

Survivor's Benefit

A 100 percent joint and survivor benefit, based on the member's accrued base benefit, will be paid to the eligible surviving spouse if the member is fully vested and dies prior to retirement.

With no eligible surviving spouse, the member's unemancipated minor children will receive 50 percent of the fully-vested member's accrued base benefit.

Contributions

MOSERS is a non-contributory plan. Members are not required to make any contributions; the entire cost is paid by the State of Missouri. The contribution rate paid by the State for fiscal year 1989 was 9.9 percent of the membership payroll.

Insurance Plans

Long-term Disability

Members of MOSERS in a position normally requiring 1,000 hours of work a year are covered under the Long-term Disability Plan, unless they work for a State agency which has its own long-term disability plan. Eligible employees receive 60 percent of their compensation minus primary social security, Workers' Compensation and employer provided income. The benefit commences on the 181st day of disability or after sick leave expires, whichever occurs last.

Long-term disability benefits cease when the disability ends, when retirement benefits begin, when the member returns to work, or upon the member's death.

Life Insurance

Basic Life Insurance

Active employees covered under the MOSERS life insurance plan receive \$15,000 of Basic Life Insurance on the first of the month coinciding with or following the date of employment. The cost of Basic Life Insurance is paid by the State. Eligible members, who immediately retire from active employment, are provided \$5,000 of Basic Life Insurance by the State—at no cost to the member. Retired members may convert up to \$10,000 to an individual policy with the insurance carrier at individual rates. Terminating employees may convert up to \$15,000 of Basic Life Insurance at individual rates.

Optional Life Insurance

Members working for an agency covered under MOSERS life insurance plan are eligible for Optional Life Insurance on the first of the month coinciding with or following their date of employment. Members are responsible for paying the entire cost of their Optional Life Insurance. The two options available are:

— Option A: Employee may elect 1, 2 or 3 times annual salary. The amount automatically increases or decreases each May 1 based on the preceding January

salary.

— Option B: Employee may elect a flat amount not to exceed three times their annual salary.

Members who immediately retire from active employment after August 13, 1988 may continue up to \$10,000 of their Optional Life Insurance at the group rate and may convert their remaining Optional Life Insurance at individual rates. Terminating employees may convert an amount up to the amount they had as an active employee at individual rates.

Medical Insurance

Active Employees

Members of MOSERS working for an agency covered by the Missouri State Medical Care Plan are eligible for medical care coverage on the first of the month following their date of employment. The annual deductible for an individual is \$300, and the maximum deductible for family coverage is \$900.

The Medical Care Plan pays 80 percent of the usual, customary and reasonable charges after the deductible is paid. Out-patient diagnostic X-ray and laboratory work is paid at 100 percent. The yearly out-of-pocket maximum is \$1,800 for an individual and \$3,900 for a family. A maximum lifetime benefit of \$1,000,000 is provided to each eligible member of the Plan.

Under the federal law COBRA, employees may choose to continue

their medical coverage at termination of employment, unless eligible for Medicare or some other group health plan, but participants must pay the entire cost. Effective June 14, 1989, terminated vested members may elect to continue medical coverage by paying the entire premium cost.

Retired Employees

Retiring employees may continue their medical care coverage if they have been covered under the Missouri State Medical Care Plan for two years prior to termination or since they were

first eligible for medical coverage. Retirees 65 or older and retirees eligible for Medicare due to a disability may select one of three supplemental medical care plans.

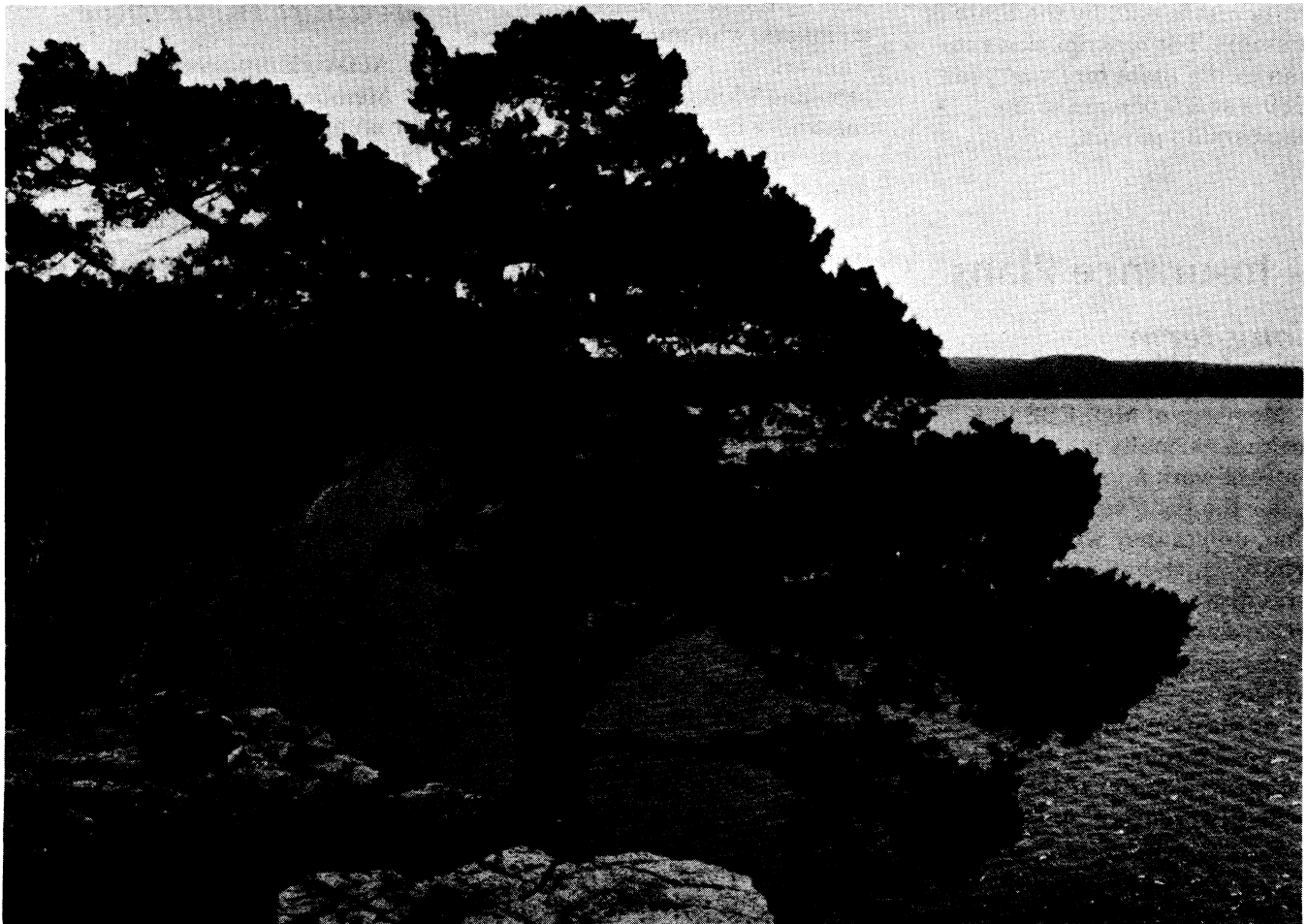
The three plans all coordinate with Medicare, but they differ in coverage and cost. The deductible for the individual and family is the same as the deductible for active employees.

HMO

Employees working for an agency covered under the MOSERS Medical Care Plan who live in a Health Maintenance

Organization (HMO) service area are provided the opportunity to enroll in either an HMO or the MOSERS Medical Care Plan.

HMO coverage is provided to employees living in the St. Louis, central Missouri and Kansas City areas. No annual deductible is charged, but co-payments are required for some medical treatments. The types of coverage and the costs vary with each HMO. During fiscal year 1989, as many as seven HMOs were available to MOSERS members.



Judges/ Administrative Law Judges

MOSERS also is responsible for the administration of the retirement, life insurance, disability and medical benefits for judges of state courts and administrative law judges/legal advisors of the Division of Workers' Compensation. (Administrative law judges/legal advisors will hereafter be referred to as ALJs.) The benefits provided to judges and ALJs are funded separately. Judges' benefits are paid by the State on a "pay-as-you-go" basis, while the benefits for ALJs are funded by the State. The State contributed 24.98% of the ALJs payroll each month during fiscal year 1989.

Normal Retirement

Judges may retire at age 62 or at age 60 with 15 years. The benefit is based on the years and months of Creditable Service the judge has and the judge's salary.

ALJs are eligible for normal retirement when they reach at least age 65 or when they have reached age 60 and have 20 or more years of Creditable Service. The benefit is based on years and full months of service and salary.

Early Retirement

Judges with less than 15 years of service may elect retirement as early as age 60. Judges who retire between age 60 and 62 receive a benefit equal to the proportion of normal retirement benefits that the judges' service bears to 15 years.

There are no early retirement provisions for ALJs.

Benefit Formula

Judges with 12 or more years of service receive a monthly benefit of one-half the salary of a judge in the highest court in which the judge served at the time the judge retires from office. Judges with less than 12 years of service receive a benefit that is calculated based on the proportion of normal retirement benefits that the judge's service bears to 12 years.

ALJs with 12 or more years of service receive a monthly benefit of one-half of their average monthly salary, based on their highest annual salary. ALJs with less than 12 years of service receive a benefit equal to the proportion of normal retirement benefits that their service bears to 12 years.

Creditable Service

Creditable Service is a combination of the Creditable Prior Service accrued before becoming a member and the years and full months of service judges or ALJs have as a member of their respective retirement plans. Creditable Service is used in determining the amount of the benefit under each retirement plan.

Cost-of-Living

Judges and ALJs may apply to become special consultants, thus providing annual cost-of-living adjustments.

Survivors Benefit

The survivor benefit of an active judge or ALJ equals 50 percent of the benefit accrued to age 70, unless the period of service could not have been 12 years by age 70 which results in no benefit being paid. The survivor benefit of a terminated judge or ALJ with 12 or more years of service is 50 percent of the accrued benefit. The benefit to the survivor of a retired judge equals 50 percent of the monthly retirement benefit.

Disability

Judges who become disabled receive one-half of their salary on the date of disability. This is a Constitutionally-provided disability benefit paid until his/her term expires. In addition, judges and ALJs receive the same Long-term Disability coverage as the other members of MOSERS.

Life Insurance

The Basic and Optional Life Insurance benefits provided to judges and ALJs are the same as those provided to other members of MOSERS as described on page 15. Basic Life Insurance for retiring or terminating judges and ALJs ends on the date of termination of employment.

Retired judges and ALJs may convert Basic Life Insurance to an individual policy and pay the individual rate.

Medical Insurance

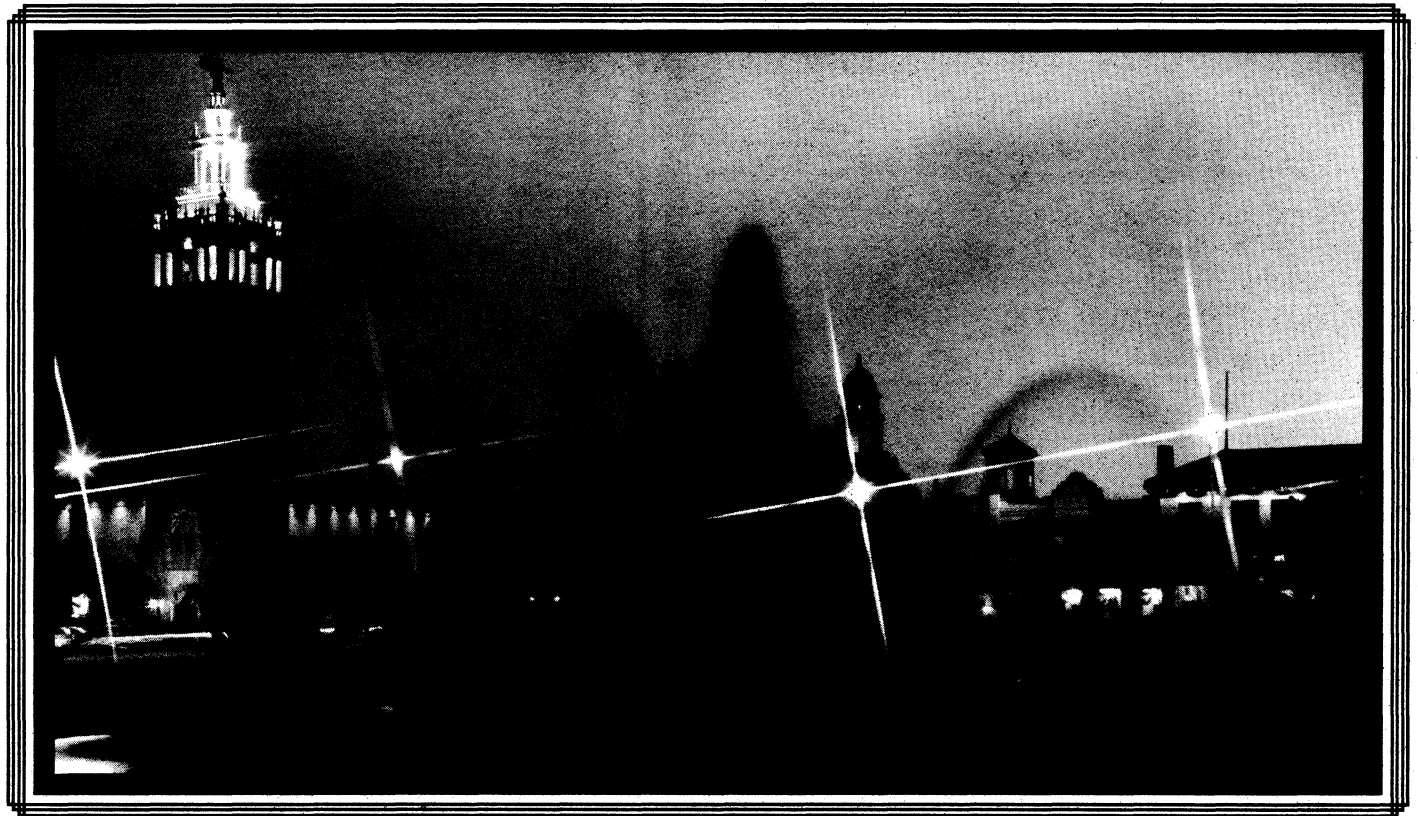
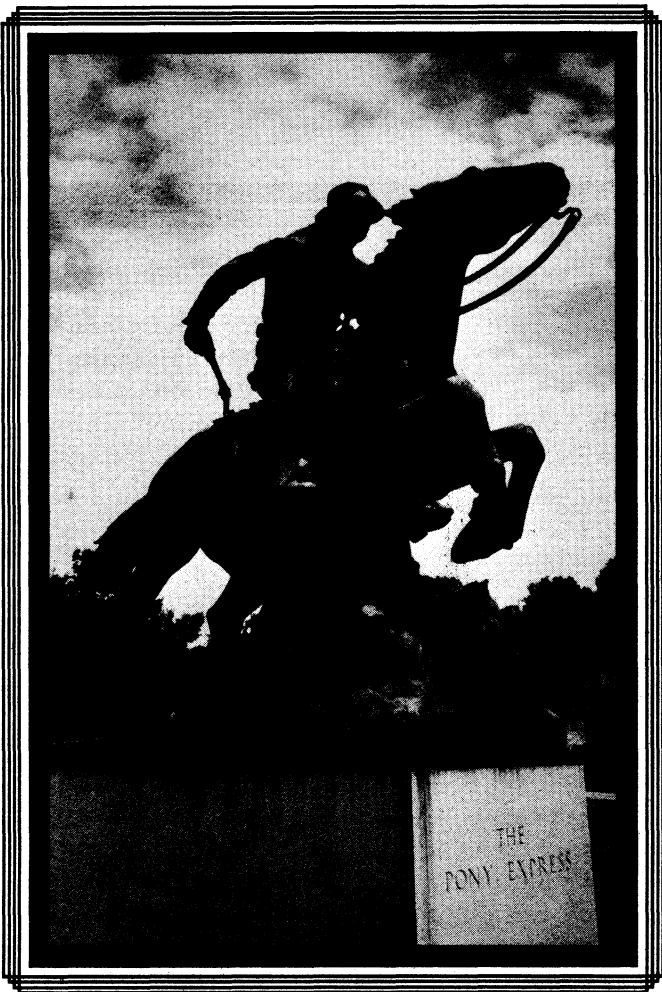
The medical insurance coverage provided to judges and ALJs is the same coverage provided to members of MOSERS as described previously.

Upper left features a tribute to the Pony Express of 1860 that linked Sacramento, California with St. Joseph, Missouri. The "Pony Riders," as the young boys were called, could deliver the mail in 10 days in spite of the uncertainty of the weather and the threat of Indian attacks. The Pony Express only lasted about 18 months. By the end of 1861 telegraph lines were completed that stretched from New York to California.

Upper right is the 630-foot Gateway Arch representing St. Louis' role as the "gateway to the West." The design for this stainless steel structure was submitted by Eero Saarinen & Associates and was selected in 1948. However, construction of the monument did not begin for another 15 years. It was completed in 1965 at the bank of the Mississippi River in St. Louis.

The bottom photo depicts another gateway area in Missouri. The Country Club Plaza was designed using a Spanish theme to remind residents that Kansas City is a gateway to southwest trade. Kansas City is also known as the "City of Fountains." The J.C. Nichols Memorial Fountain is featured in this photo.

Financial Section



Photos Courtesy of the Missouri Division of Tourism

Peat Marwick

Certified Public Accountants

Peat Marwick Main & Co.

1010 Market Street

St. Louis, MO 63101

Independent Auditors' Report

September 1, 1989

Board of Trustees
Missouri State Employees' Retirement System
Jefferson City, Missouri 65101

We have audited the general purpose financial statements of the Missouri State Employees' Retirement System as of and for the year ended June 30, 1989, as listed in the accompanying table of contents. These general purpose financial statements are the responsibility of the Retirement System's management. Our responsibility is to express an opinion on these general purpose financial statements based on our audit.

We conducted our audit in accordance with generally accepted auditing standards. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the general purpose financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the general purpose financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

In our opinion, the general purpose financial statements referred to above present fairly, in all material respects, the financial position of the Missouri State Employees' Retirement System, at June 30, 1989, and the results of its operations and the changes in its financial position for the year then ended in conformity with generally accepted accounting principles.

Our audit was made for the purpose of forming an opinion on the general purpose financial statements taken as a whole. The combining and individual fund financial statements and supplementary information included in pages 34 through 44 are presented for purposes of additional analysis and are not a required part of the general purpose financial statements of the Missouri State Employees' Retirement System. Such information, except for that portion marked "unaudited," on which we express no opinion, has been subjected to the auditing procedures applied in the audit of the general purpose financial statements and, in our opinion, is fairly presented in all material respects in relation to the general purpose financial statements taken as a whole.

Peat Marwick Main & Co.

Missouri State Employees' Retirement System Combined Balance Sheet - All Fund Types

June 30, 1989

	Fiduciary Fund Type - Pension Trusts	Proprietary Fund Type - Internal Service	Total (Memorandum Only)
ASSETS			
Contributions Receivable	\$ 8,136,733	\$ 4,901,888	\$ 13,038,621
Accrued Interest and Dividends	9,923,376	315,071	10,238,447
Accounts Receivable-Securities Sold	23,081,334	0	23,081,334
Accounts Receivable-Other	124,787	0	124,787
Investments; at Cost	1,386,810,399	19,753,643	1,406,564,042
Office Building, Equipment and Fixtures, Net of Accumulated Depreciation	1,555,116	0	1,555,116
Total Assets	\$ 1,429,631,745	\$ 24,970,602	\$ 1,454,602,347
LIABILITIES AND FUND EQUITY			
<i>Liabilities:</i>			
Accounts Payable-Securities Purchased	\$ 21,960,965	\$ 0	\$ 21,960,965
Collateral for Securities on Loan	28,838,650	0	28,838,650
Medical Claims Payable	0	15,660,836	15,660,836
Other	5,444,541	5,395,153	10,839,694
Total Liabilities	56,244,156	21,055,989	77,300,145
<i>Fund Equity:</i>			
Fund Balance:			
Reserved for Employees' Retirement Benefits:			
Member Contributions - MOSERS	492,278	0	492,278
State Contributions - MOSERS (Unfunded Actuarial Liability 364,410,031)	1,369,651,987	0	1,369,651,987
State Contributions - ALJRS (Unfunded Actuarial Liability 3,101,830)	3,243,324	0	3,243,324
Retained Earnings:			
Reserved for Employee Medical and Life Insurance Benefits:			
Basic Life Contributions in Excess of Funding Requirements	0	808,079	808,079
Accumulated State Contributions	0	16,838,452	16,838,452
Unreserved Accum. Employee Contrib. Deficit	0	(13,731,918)	(13,731,918)
Total Fund Equity	1,373,387,589	3,914,613	1,377,302,202
Total Liabilities and Fund Equity	\$ 1,429,631,745	\$ 24,970,602	\$ 1,454,602,347

See accompanying Notes to the Financial Statements.

Missouri State Employees' Retirement System
Combined Statement Of Revenues, Expenses,
And Changes In Fund Balance/Retained Earnings - All Fund Types

Year Ended June 30, 1989

	Fiduciary Fund Type - Pension Trusts	Proprietary Fund Type - Internal Service	Total (Memorandum Only)
REVENUES			
State Contributions	\$ 93,964,232	\$ 38,354,347	\$ 132,318,579
State Contributions - Emergency Appropriation	0	6,756,814	6,756,814
Member Contributions	0	15,548,221	15,548,221
Insured Plans Premiums	0	21,048,526	21,048,526
State Contributions Basic Life Plan	0	1,885,927	1,885,927
Payments for Military Service Credit	376,701	0	376,701
State Reimbursements	5,549,696	0	5,549,696
Investment Income	118,247,632	898,264	119,145,896
Miscellaneous Income	20,979	304,062	325,041
Total Revenues	218,159,240	84,796,161	302,955,401
EXPENSES			
Retirement Benefits	50,989,410	0	50,989,410
Disability Benefits	1,204,210	0	1,204,210
Survivors' Benefits	1,681,253	0	1,681,253
Contribution Refunds	4,298	0	4,298
Medical Claims	0	50,881,898	50,881,898
Basic Life Benefits	0	56,000	56,000
Basic Life Premiums	0	1,860,544	1,860,544
Insured Plans Premiums	0	20,970,291	20,970,291
Premium Refunds	0	235,972	235,972
Administrative	7,530,253	2,985,644	10,515,897
Total Expenses	61,409,424	76,990,349	138,399,773
Revenues Over Expenses	156,749,816	7,805,812	164,555,628
Fund Balance/Retained Earnings			
(Deficit) July 1, 1988	1,216,637,773	(3,891,199)	1,212,746,574
Fund Balance/Retained Earnings June 30, 1989	\$ 1,373,387,589	\$ 3,914,613	\$ 1,377,302,202

See accompanying Notes to the Financial Statements.

Missouri State Employees' Retirement System

Combined Statement Of Changes In Financial Position - All Fund Types

Year Ended June 30, 1989

	Fiduciary Fund Type - Pension Trusts	Proprietary Fund Type - Internal Service	Total (Memorandum Only)
SOURCES OF WORKING CAPITAL			
Revenue Over Expenses	\$ 156,749,816	\$ 7,805,812	\$ 164,555,628
Items Not Requiring Use of Working Capital:			
Depreciation	83,250	0	83,250
Loss on Sale of Equipment	163,836	0	163,836
Working Capital Provided From Operations	156,996,902	7,805,812	164,802,714
Investments Sold or Matured	1,213,351,334	7,342,801	1,220,694,135
Disposition of Fixed Assets	4,584	0	4,584
Total Sources of Working Capital	<u>\$ 1,370,352,820</u>	<u>\$ 15,148,613</u>	<u>\$ 1,385,501,433</u>
USES OF WORKING CAPITAL			
Investments Purchased	\$ 1,295,673,927	\$ 13,442,544	\$ 1,309,116,471
Equipment Purchased	79,044	0	79,044
Net Increase in Working Capital	74,599,849	1,706,069	76,305,918
Total Uses of Working Capital	<u>\$ 1,370,352,820</u>	<u>\$ 15,148,613</u>	<u>\$ 1,385,501,433</u>
ELEMENTS OF NET INCREASE (DECREASE) IN WORKING CAPITAL			
Current Assets:			
Contributions Receivable	\$ (1,457,661)	\$ 949,141	\$ (508,520)
Short-term Investments	39,770,884	5,173,725	44,944,609
Accrued Interest and Dividends	836,330	250,064	1,086,394
Accounts Receivable-Securities Sold	9,233,025	0	9,233,025
Accounts Receivable-Other	124,787	0	124,787
Current Liabilities:			
Accounts Payable-Securities Purchased	1,525,482	0	1,525,482
Collateral for Securities on Loan	23,583,567	0	23,583,567
Medical Claims Payable	0	(3,419,452)	(3,419,452)
Other	983,435	(1,247,409)	(263,974)
Net Increase in Working Capital	<u>\$ 74,599,849</u>	<u>\$ 1,706,069</u>	<u>\$ 76,305,918</u>

See accompanying Notes to the Financial Statements.

Missouri State Employees' Retirement System Notes to the Financial Statements

Year ended June 30, 1989

(1) Plan Descriptions

MOSERS

The Missouri State Employees' Retirement System (MOSERS) is a single-employer, public employee retirement system administered in accordance with Section 104.010 and 104.320 to 104.800 of the Revised Missouri State Statutes. As established under Section 104.320 RSMo "The Missouri State Employees' Retirement System shall be a body corporate and an instrumentality of the state. In the System shall be vested the powers and duties specified in sections 104.010 and 104.320 to 104.800 and such other powers as may be necessary or proper to enable it, its officers, employees and agents to carry out fully and effectively all the purposes of sections 104.010 and 104.320 to 104.800." Responsibility for the operation and administration of the System is vested in the MOSERS Board of Trustees. MOSERS is considered a part of the State of Missouri financial reporting entity and is included in the State's financial reports as a pension trust fund.

Substantially all full-time State employees who are not covered under another State-sponsored retirement plan are eligible for membership in MOSERS. On June 30, 1989, membership consisted of the following:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	16,087
Current employees	43,787
Total	<u>59,874</u>

MOSERS provides retirement, death and disability benefits to its members. Benefits for general State employees are 50 percent vested after five years of creditable service and fully vested after 10 years of creditable service (four years for elected officials and six years for legislators). Employees may retire at or after age 55 and receive a reduced benefit (or full benefits if they have 30 years or more of service).

The State of Missouri is required to make all contributions to the Plan. Prior to September 1, 1972, contributions by members were required. Accumulated employee contributions made prior to that time, plus interest, are refunded to the member or designated beneficiaries.

ALJRS

The Administrative Law Judges' Retirement System (ALJRS) is a single-employer, public employee retirement system administered in accordance with Section 287.812 to 287.855 RSMo. Responsibility for the operation and administration of the System is vested in the MOSERS Board of Trustees. The Administrative Law Judges' Retirement System is considered a part of the State of Missouri financial reporting entity and is included in the State's financial reports as a pension trust fund.

Individuals appointed or employed as Administrative Law Judges or Legal Advisors of the Division of Workers' Compensation are eligible for membership in ALJRS.

ALJRS provides retirement, death and disability benefits to its members. Employees who retire on or after age 65 with 12 or more years of creditable service are eligible for a monthly retirement benefit equal to one-half of the highest salary received during the period of service. Employees with less than 12 years of service are eligible for a reduced benefit upon retirement. The State of Missouri is required to make all contributions to the plan. On June 30, 1989, membership consisted of the following:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	7
Current employees	<u>36</u>
Total	<u>43</u>

Judicial Retirement Plan

The Judicial Retirement Plan provides retirement, death and disability benefits to those serving as judges in the State of Missouri. Retirement benefits for members of the judiciary are administered and paid by MOSERS. Amounts paid are reimbursed monthly from appropriations of State funds and are not obligations of MOSERS.

Supreme Court judges who are at least age 65 with eight or more years of creditable service in that capacity (or age 60 with 12 years of creditable service) are eligible for retirement benefits equal to one-half of the salary provided by law at the time of retirement. Other judges are eligible for retirement benefits at age 62 with 12 years of creditable service equal to one-half of the salary paid to the judge in the highest court served. On June 30, 1989, membership consisted of the following:

Retirees and beneficiaries currently receiving benefits and terminated employees entitled to benefits but not yet receiving them	304
Current employees	<u>342</u>
Total	<u>646</u>

Missouri State Insurance Plan

The Missouri State Insurance Plan is an internal service fund of the State of Missouri administered by MOSERS. It provides medical insurance for eligible members of the Missouri State Employees' Retirement System (except employees of the Department of Conservation, the Division of Employment Security, Highway Department, Highway Patrol and State Colleges and Universities), members of the Judicial Retirement Plan, legislators, statewide elected officials and certain members of the Public School Retirement System; basic life insurance for active employees of the aforementioned groups; and optional life insurance for active employees and retirees. Beginning January 1, 1986, eligible members were covered by the Long-term Disability Plan. The Missouri State Insurance Plan is considered a part of the State of Missouri financial reporting entity and is included in the State's financial reports as an internal service fund.

(2) Summary of Significant Accounting Policies and Plan Asset Matters

Basis of Accounting

The financial statements of the MOSERS, ALJRS, Missouri State Insurance Plan and Judicial Retirement Plan were prepared using the accrual basis of accounting. Employer and employee contributions are recognized as revenues in the period in which employee services are performed and expenses are recorded when the corresponding liabilities are incurred, regardless of when payment is made. Medical claims expense is recognized when claims are incurred as estimated by the plan's insurance consultant.

Cash

Cash balances represent both operating cash accounts and investment cash on deposit with the investment custodian. To maximize investment income, the float caused by outstanding checks is invested thus causing a negative book balance. The negative book balance has been reflected in accounts payable. The following is a schedule of the book and bank balances of all cash accounts. All deposits are fully insured by the FDIC.

Cash Balances

<u>Pension Trusts</u>		<u>Internal Service</u>	
<u>Book</u>	<u>Bank</u>	<u>Book</u>	<u>Bank</u>
\$ (1,754,821)	\$ 3,138,281	\$ (2,052,270)	\$ 623,955

Total Memorandum Only Columns

Total columns on the combined statements are captioned "Memorandum Only" to indicate that they are presented only to facilitate financial analysis. Data in these columns do not present financial position, results of operations, or changes in financial position in conformity with generally accepted accounting principles. Such data is not comparable to a consolidation since interfund eliminations have not been made.

Method Used to Value Investments

Investments are carried at cost subject to adjustment for significant market declines judged to be other than temporary. The cost of investments sold are determined using the average cost of that security. Bond premium and discount are not amortized and are recognized only upon sale or maturity of the related bonds. Amortization of bond premium and discount would not significantly affect total investment income. Dividend income is recognized based on dividends declared. Security transactions are accounted for on the trade date securities are purchased or sold. Net realized gains and losses on investments are included in investment income. Gains and losses on exchanges of fixed-income securities are recognized on a completed transaction basis. The following is a summary of the cost and market values of the investments as reported on the Combined Balance Sheet.

Investments

	Pension Trust Funds		Internal Service Fund		Total (Memorandum Only)	
	Cost	Market	Cost	Market	Cost	Market
Common Stock	\$ 694,143,435	\$ 781,695,518	\$ 0	\$ 0	\$ 694,143,435	\$ 781,695,518
Preferred Stocks	4,752,347	3,844,601	0	0	4,752,347	3,844,601
Fixed Income	372,393,739	405,620,362	11,424,618	11,540,046	383,818,357	417,160,408
Real Estate	108,529,588	103,063,933	0	0	108,529,588	103,063,933
Venture Capital	25,985,659	26,260,962	0	0	25,985,659	26,260,962
Short-term Investments	181,005,631	181,005,631	8,329,025	8,329,025	189,334,656	189,334,656
Totals	<u>\$ 1,386,810,399</u>	<u>\$ 1,501,491,007</u>	<u>\$ 19,753,643</u>	<u>\$ 19,869,071</u>	<u>\$ 1,406,564,042</u>	<u>\$ 1,521,360,078</u>

Categories of Asset Risks

All investments are governed primarily by an investment authority known as the "prudent person rule." The "prudent person rule," as set forth by State statute, establishes a standard for all fiduciaries, which includes anyone who has authority with respect to the funds. The System's investments are categorized to give an indication of the level of risk assumed by the System at year-end. **Category 1** includes investments that are insured or registered or which are held by the System or its agent in the System's name. **Category 2** includes uninsured and unregistered investments which are held by the counterparty's trust departments or agent in the System's name. **Category 3** includes uninsured and unregistered investments which are held by the counterparty, its trust department, or agent, but not in the System's name. As of June 30, 1989, all investments of the System are classified in **Category 1**.

Office Building, Equipment and Fixtures

Office building, equipment and fixtures are capitalized at cost when acquired. Improvements which increase the useful life of the property are capitalized. Maintenance and repairs are charged to expenses as incurred. Depreciation is computed on the straight-line method over the estimated useful lives of the related assets of 3 to 40 years. The following schedule represents the components of the amount reported on the Combined Balance Sheet.

Land		\$ 71,000
Building, Equip. & Fixtures	\$ 1,764,899	
Less Accum. Depreciation	<u>280,783</u>	<u>1,484,116</u>
Total		<u>\$ 1,555,116</u>

(3) Funding Status and Progress

The amount shown as the "Pension Benefit Obligation" is a standardized disclosure measure of the present value of pension benefits, adjusted for the effects of projected salary increases, estimated to be payable in the future as a result of employee service to date. The measure is the actuarial present value of credited projected benefits and is intended to help users assess the System's funding status on a going-concern basis, assess progress being made in accumulating sufficient assets to pay benefits when due, and allow for comparisons with other public employees' retirement systems. The measure is independent of the actuarial funding method used to determine contributions to the plans.

The Pension Benefit Obligation was determined as part of an actuarial valuation of the System as of June 30, 1989. Significant actuarial assumptions used in the valuation include (a) a rate of return on the investment of present and future assets of 8.0% per year compounded annually, (b) projected salary increases of 5.0% per year compounded annually, attributable to inflation, (c) additional projected salary increases ranging from 1.0% to 4.0% per year, depending on age, attributable to seniority and/or merit, and (d) the assumption that benefits will increase 4.5% per year after retirement.

MOSERS

(Dollars in Thousands)

Pension Benefit Obligation

Retirees and beneficiaries currently receiving benefits	\$ 492,128
Terminated employees not yet receiving benefits	61,628
<i>Current Employees:</i>	
Accumulated employee contributions including	
allocated investment income	492
Employer financed — vested	864,355
Employer financed — non-vested	92,373
Total Pension Benefit Obligation	1,510,976
Net assets available for benefits, at cost	
(Market Value \$1,484,555)	1,370,144
Unfunded Pension Benefit Obligation	<u>\$ 140,832</u>

During the year ended June 30, 1989, the MOSERS plan experienced a net increase of \$244.2 million in the pension benefit obligation.

ALJRS

(Dollars in Thousands)

Pension Benefit Obligation

Retirees and beneficiaries currently receiving benefits	\$ 2,109
Terminated employees not yet receiving benefits	0
<i>Current employees:</i>	
Accumulated employee contributions including	
allocated investment income	0
Employer financed — vested	4,114
Employer financed — non-vested	0
Total Pension Benefit Obligation	6,223
Net assets available for benefits, at cost	
(Market Value \$3,513)	3,243
Unfunded Pension Benefit Obligation	<u>\$ 2,980</u>

During the year ended June 30, 1989, the ALJRS plan experienced a net increase of \$1.0 million in the pension benefit obligation.

(4) Funding Policy

MOSERS and the ALJRS are pension plans covering substantially all State of Missouri employees and law judges and legal advisors of the Division of Workers' Compensation. The State of Missouri is obligated by State law to make all required contributions to the plans. The required contributions are expressed as a level percentage of covered payroll and are actuarially determined using an individual entry-age actuarial cost method. The prior service costs are amortized over an initial amortization period of 40 years.

MOSERS — With the exception of fiscal year 1989, contributions were made in accordance with actuarially determined requirements. Beginning in fiscal year 1989, the rate is statutorily set at 9.9%. This rate remains in effect unless revenues do not exceed expenses by 375% in any one year or until fiscal year 1993.

ALJRS — Contributions were made in accordance with actuarially determined requirements.

Historical trend information on the funding of the Pension Plans can be found in the required supplementary information on pages 32-33.

Missouri State Insurance Plan

The Missouri State Insurance Plan is funded through both employer and employee contributions. Employer contribution rates are statutorily determined as a fixed dollar amount per month per eligible employee. Employee rates are established by the Board of Trustees based on projected claims experience and funding provided by employer contributions. State statutes provide that the employer contributions are to be used to provide for the employees medical costs (and their dependents if appropriations are provided). The Unreserved Accumulated Employee Contribution Deficit represents the negative balance arising from the employee premiums being less than needed to cover their dependent expenses and no appropriations were provided for dependent coverage. Contributions totaling \$62,545,309 were made to the Plan during the year in accordance with these requirements.

(5) Plan Termination

The Missouri State Employees' Retirement System and its related plans are administered in accordance with Missouri statutes. The statutes do not provide for termination of the plans under any circumstances.

(6) Contingencies

As of June 30, 1989 Missouri State Employees' Retirement System was subject to the following court judgment:

Michelle Higgins, et al. v. MOSERS, Cole County, Case No. CV189-567CC. This is a class action brought by Michelle Higgins, on behalf of women covered under the Missouri State Medical Care Plan who conceived a child prior to December 31, 1983, and gave birth after January 1, 1984.

MOSERS modified its medical plan effective January 1, 1984, and the change meant a reduction in benefits in connection with pregnancy. Higgins alleges that MOSERS could not make a change in a policy so as to affect rights that had already vested by her becoming pregnant, i.e. conception. Previously the quantum of benefits was determined by the plan in effect at the time of the birth of the member's child.

Motion to Dismiss for Failure to State a Claim was granted by the trial court. However, the Missouri Court of Appeals reversed and entered judgment in favor of Higgins and remanded for a determination of damages only. The Missouri Supreme Court refused to review the decision. A Petition of Writ of Certiorari with the United States Supreme Court was filed but recently denied.

Although the damages in the Higgins case are ascertainable, it will be several months before the total number of members of the class and the amount which must be paid to the members can be ascertained. In the opinion of management, the ultimate aggregate amount to be paid as a result of this judgment will not be material to the financial statements. No provision for payment of this judgment has been included in the accompanying financial statements.

(7) Required Supplementary Information

Ten year historical trend information designed to provide information about MOSERS and its related plans' progress made in accumulating sufficient assets to pay benefits when due is presented on pages 32-33 as Required Supplementary Information. Certain required information is not available for the full ten years, and is noted as such.

The comparability of trend information is affected by changes in actuarial assumptions, benefit provisions, actuarial funding methods, accounting policies and other changes. Those changes usually affect trends in contribution requirements and ratios that use the pension benefit obligation as a factor.

Looking at the pension benefit obligation, or the unfunded portion (or the assets in excess) of the pension benefit obligation, in isolation can be misleading. Expressing net assets available for benefits as a percentage of the pension benefit obligation, provides one indication of the extent to which a public employees' retirement system (PERS) is funded. Analysis of this percentage over time indicates whether the PERS is becoming financially stronger or weaker. Generally, the greater this percentage, the stronger the PERS. Expressing the unfunded pension benefit obligation (or assets in excess of the pension benefit obligation) as a percentage of the annual covered payroll approximately adjusts for the effects of inflation and aids analysis of funding progress. Generally, the smaller the unfunded percentage, the stronger the PERS.

The following is a list of significant changes which have occurred during the 10 years presented, and should be considered when reviewing the data.

1980— Legislation was enacted which required funding the cost of living adjustments of members retiring after August 30, 1980. MOSERS was given a three year time period to bring the funding in full compliance; therefore, the Board of Trustees implemented a graduated increase to comply with the legislation. By fiscal year 1983 those liabilities were included in the required actuarial determined contribution rate. Cost of living adjustments for those members who retired prior to September 1, 1980 remained on a "pay-as-you-go" basis.

1983— The actuarial valuation performed to determine the required contribution rate for fiscal year 1985 had the following significant changes expressed in both the dollar impact and the effect on the percentage of payroll:

	Dollar Amount	% of Payroll
Refinement of the funding method application	\$ (5,417,672)	(1.9)
Actuarial gains	(1,181,084)	(.3)
Increase in covered payroll	(2,403,795)	(.4)

1984— The actuarial valuation performed to determine the required contribution rate for fiscal year 1986 had the following significant changes:

	Dollar Amount	% of Payroll
Increase due to benefit changes	\$ 7,550,582	1.4

1986— The actuarial valuation performed to determine the required contribution rate for fiscal year 1988 had the following significant changes:

	Dollar Amount	% of Payroll
Funding of previously "pay-as-you-go" benefits	\$ 9,610,413	1.46
Raising the cap on cost of living adjustments from 50% to 65% of the initial benefit	3,869,725	.63
Providing normal retirement at age 55 with 30 years of service	1,267,139	.20

1988— Legislation enacted setting the retirement contribution rate at 9.9% for fiscal years 1990 through 1993 unless total revenues (excluding unrealized appreciation of investments) is less than 375% of total expenses in any one year. The Board of Trustees voted to adopt the 9.9% beginning with fiscal year 1989. During 1988, MOSERS received approximately 2,700 members transferring from the Public School Retirement System and approximately 540 members transferring from the Lincoln University Employee Retirement System.

1989— MOSERS total revenues were less than 375% of total expenses for the fiscal year ended June 30, 1989. The Board of Trustees voted to keep the retirement contribution rate set at 9.9% through fiscal year 1993. During 1989, approximately 120 members transferred from the Public School Retirement System to MOSERS.

Required Supplementary Information Ten Years Ended June 30, 1989

MOSERS' Valuation (Dollars In Thousands)

Valuation Date	Pension Benefit Obligation PBO	Net Assets At Cost	Net Assets As a % of PBO	Unfunded (Assets in Excess of) Pension Benefit Obligation UFPBO	Active Member Payroll	UFPBO As a % of Active Member Payroll
June 30, 1989	\$ 1,510,976	\$ 1,370,144	90.7%	\$ 140,832	\$ 895,170	15.7%
June 30, 1988	1,266,733	1,214,006	95.8	52,727	824,486	6.4
June 30, 1987	982,736	1,053,361	107.2	(70,625)	692,363	(10.2)

Information Prior To June 30, 1987 Not Available

ALJRS' Valuation (Dollars In Thousands)

Valuation Date	Pension Benefit Obligation PBO	Net Assets At Cost	Net Assets As a % of PBO	Unfunded Pension Benefit Obligation UFPBO	Active Member Payroll	UFPBO As a % of Active Member Payroll
June 30, 1989	\$ 6,223	\$ 3,243	52.1%	\$ 2,980	\$ 1,870	159.4%
June 30, 1988	5,211	2,632	50.5	2,579	1,408	183.2
June 30, 1987	4,086	2,278	55.8	1,808	1,418	127.5

Information Prior To June 30, 1987 Not Available

MOSERS' Revenue By Source

Fiscal Year	Employer Contribution as a % of Active Member Payroll	Employer Contribution Amount	Employer Contributions Service Transfers	Member Payments For Military Service Credit	State Reimbursements For Nonfunded Benefits	Investment Income	Other	Total
1989	9.9000%	\$ 89,177,022	\$ 4,274,011	\$ 376,701	\$ 5,549,696	\$ 117,968,268	\$ 20,901	\$ 217,366,599
1988	12.1031%	96,412,071	52,223,619	596,649	9,084,452	52,057,522	26,469	210,400,782
1987	10.0000%	71,969,009	0	143,670	15,238,962	185,051,476	(43,198)	272,359,919
1986	11.3328%	71,972,655	0	0	11,059,943	129,568,053	(10,051)	212,590,600
1985	10.5167%	58,295,102	0	0	9,845,857	70,642,944	3	138,783,906
1984	13.1000%	67,753,003	0	0	8,323,040	48,045,669	53	124,121,765
1983	12.0000%	57,166,556	0	0	7,779,495	58,007,997	716	122,954,764
1982	9.5000%	42,448,992	0	0	8,781,407	11,125,102	65	62,355,566
1981	9.5000%	43,736,642	0	0	7,046,677	27,464,519	153	78,247,991
1980	7.0000%	31,708,836	0	0	7,649,889	20,256,019	50	59,614,794

MOSERS' Expenses By Type

Fiscal Year	Benefits	Contribution Refunds	Administrative	Fund Transfer to ALJRS	Total
1989	\$ 53,711,546	\$ 4,298	\$ 7,512,434	\$ 0	\$ 61,228,278
1988	43,431,100	25,889	6,299,182	0	49,756,171
1987	37,881,039	43,549	7,059,516	0	44,984,104
1986	30,832,582	473,921	5,584,410	0	36,890,913
1985	27,093,057	82,333	3,365,898	802,440	31,343,728
1984	23,450,927	141,315	2,513,718	0	26,105,960
1983	20,735,516	202,715	2,002,860	0	22,941,091
1982	18,038,756	1,806,642	755,814	0	20,601,212
1981	16,211,727	261,148	696,798	0	17,169,673
1980	15,281,397	5,035,863	561,596	0	20,878,856

ALJRS' Revenues By Source

Fiscal Year	Employer Contribution as a % of Active Member Payroll	Employer Contribution Amount	Employer Contributions Service Transfers	Fund Transfer From MOSERS	Investment Income	Other	Total
1989	24.9800%	\$ 450,299	\$ 62,900	\$ 0	\$ 279,364	\$ 78	\$ 792,641
1988	24.9800%	359,066	0	0	112,845	105	472,016
1987	24.9800%	346,596	0	0	384,409	(89)	730,916
1986	24.9800%	255,229	0	0	246,517	(19)	501,727
1985	18.3733%	152,743	0	802,440	141,569	1	1,096,753

Plan Established Fiscal Year 1985

ALJRS' Expenses By Type

Fiscal Year	Benefits	Administrative	Total
1989	\$ 163,327	\$ 17,819	\$ 181,146
1988	104,757	13,412	118,169
1987	52,983	14,665	67,648
1986	11,412	10,624	22,036
1985	0	6,746	6,746

Plan Established Fiscal Year 1985

Missouri State Employees' Retirement System Combining Balance Sheet - Pension Trust Funds

June 30, 1989

	MOSERS	ALJRS	Total
ASSETS			
Contributions Receivable	\$ 8,096,909	\$ 39,824	\$ 8,136,733
Accrued Interest and Dividends	9,900,065	23,311	9,923,376
Accounts Receivable-Securities Sold	23,027,114	54,220	23,081,334
Accounts Receivable-Other	124,505	282	124,787
Investments; at Cost	1,383,544,846	3,265,553	1,386,810,399
Office Building, Equipment and Fixtures, net of Accumulated Depreciation	1,555,116	0	1,555,116
Total Assets	\$ 1,426,248,555	\$ 3,383,190	\$ 1,429,631,745
LIABILITIES AND FUND BALANCES			
Liabilities:			
Accounts Payable-Securities Purchased	\$ 21,901,540	\$ 59,425	\$ 21,960,965
Collateral for Securities on Loan	28,770,885	67,765	28,838,650
Other	5,431,865	12,676	5,444,541
Total Liabilities	56,104,290	139,866	56,244,156
Fund Balances:			
Reserved for Employee Retirement Benefits:			
Member Contributions - MOSERS	492,278	0	492,278
State Contributions - MOSERS	1,369,651,987	0	1,369,651,987
State Contributions - ALJRS	0	3,243,324	3,243,324
Total Fund Balances	1,370,144,265	3,243,324	1,373,387,589
Total Liabilities and Fund Balances	\$ 1,426,248,555	\$ 3,383,190	\$ 1,429,631,745

See accompanying Independent Auditors' Report

Missouri State Employees' Retirement System
Combining Statement Of Revenues, Expenses,
And Changes In Fund Balance - Pension Trust Funds
 Year Ended June 30, 1989

	MOSERS	ALJRS	Total
REVENUES			
State Contributions	\$ 93,451,033	\$ 513,199	\$ 93,964,232
Payments for Military Service Credit	376,701	0	376,701
State Reimbursements	5,549,696	0	5,549,696
Investment Income	117,968,268	279,364	118,247,632
Miscellaneous Income	20,901	78	20,979
Total Revenues	217,366,599	792,641	218,159,240
EXPENSES			
Retirement Benefits	50,826,083	163,327	50,989,410
Disability Benefits	1,204,210	0	1,204,210
Survivors' Benefits	1,681,253	0	1,681,253
Contribution Refunds	4,298	0	4,298
Administrative	7,512,434	17,819	7,530,253
Total Expenses	61,228,278	181,146	61,409,424
Revenues Over Expenses	156,138,321	611,495	156,749,816
Fund Balance July 1, 1988	1,214,005,944	2,631,829	1,216,637,773
Fund Balance June 30, 1989	\$ 1,370,144,265	\$ 3,243,324	\$ 1,373,387,589

See accompanying Independent Auditors' Report

Missouri State Employees' Retirement System **Combining Statement Of Changes In Financial Position - Pension Trust Funds**

Year Ended June 30, 1989

	MOSERS	ALJRS	Total
SOURCES OF WORKING CAPITAL			
Revenue Over Expenses	\$ 156,138,321	\$ 611,495	\$ 156,749,816
Items Not Requiring Use of Working Capital:			
Depreciation	83,250	0	83,250
Loss on Sale of Equipment	163,836	0	163,836
Working Capital Provided From Operations	156,385,407	611,495	156,996,902
Investments Sold or Matured	1,211,626,180	1,725,154	1,213,351,334
Disposition of Fixed Assets	4,584	0	4,584
Total Sources of Working Capital	\$ 1,368,016,171	\$ 2,336,649	\$ 1,370,352,820
USES OF WORKING CAPITAL			
Investments Purchased	\$ 1,293,534,184	\$ 2,139,743	\$ 1,295,673,927
Equipment Purchased	79,044	0	79,044
Net Increase in Working Capital	74,402,943	196,906	74,599,849
Total Uses of Working Capital	\$ 1,368,016,171	\$ 2,336,649	\$ 1,370,352,820
ELEMENTS OF NET INCREASE (DECREASE) IN WORKING CAPITAL			
Current Assets:			
Contributions Receivable	\$ (1,467,944)	\$ 10,283	\$ (1,457,661)
Short-term Investments	39,650,615	120,269	39,770,884
Accrued Interest and Dividends	832,638	3,692	836,330
Accounts Receivable-Securities Sold	9,208,704	24,321	9,233,025
Accounts Receivable-Other	124,505	282	124,787
Current Liabilities:			
Accounts Payable-Securities Purchased	1,534,041	(8,559)	1,525,482
Collateral for Securities on Loan	23,538,152	45,415	23,583,567
Other	982,232	1,203	983,435
Net Increase in Working Capital	\$ 74,402,943	\$ 196,906	\$ 74,599,849

See accompanying Independent Auditors' Report

Missouri State Employees' Retirement System
Pension Trust Funds
Cash Receipts and Disbursements Schedule
 Year Ended June 30, 1989

CASH RECEIPTS

Employer and Member Contributions	\$ 103,816,355
State Reimbursements	5,857,189
Investment Income	114,646,957
Investments Sold	3,350,798,974
Miscellaneous Income	25,124
Sale of Fixed Assets	212
Securities Lending Receipts	1,860,297,650
Total	<u>5,435,442,461</u>

CASH DISBURSEMENTS

Benefit Payments	53,874,873
Contribution Refunds	4,248
Purchase Fixed Assets	70,408
Investments Purchased	3,489,011,021
Securities Lending Disbursements	1,883,881,215
Administrative Expenditures	6,865,736
Total	<u>5,433,707,501</u>
Net Increase in Cash	1,734,960
Cash Balance at July 1, 1988	(3,489,781)
Cash Balance at June 30, 1989	<u><u>\$ (1,754,821)</u></u>

See accompanying Independent Auditors' Report

**Missouri State Employees' Retirement System
Internal Service Fund
Cash Receipts And Disbursements Schedule**

Year Ended June 30, 1989

CASH RECEIPTS

Employer and Member Contributions	\$ 82,633,016
Investment Income	648,200
Investments Sold	88,163,136
Miscellaneous Income	299,963
Total	<u>171,744,315</u>

CASH DISBURSEMENTS

Medical Claims Paid	47,478,041
Basic Life Claims Paid	56,000
Premium Disbursements to Outside Carriers	22,011,363
Investments Purchased	99,436,605
Premium Refunds	235,972
Administrative Expenditures	3,100,357
Total	<u>172,318,338</u>
Net Decrease in Cash	(574,023)
Cash Balance at July 1, 1988	<u>(1,478,247)</u>
Cash Balance at June 30, 1989	<u><u>\$ (2,052,270)</u></u>

See accompanying Independent Auditors' Report

Missouri State Employees' Retirement System

Schedule Of Administrative Expenses - All Fund Types

Year Ended June 30, 1989

	Fiduciary Fund Type - Pension Trusts			Proprietary
	MOSERS	ALJRS	Total	Fund Type Internal Service
PERSONAL SERVICE				
Salaries	\$ 595,751	\$ 1,395	\$ 597,146	\$ 406,344
Employee Fringe Benefits	134,698	315	135,013	93,925
Total Personal Service	730,449	1,710	732,159	500,269
PROFESSIONAL SERVICES				
Investment	6,015,579	14,085	6,029,664	31,406
Actuarial	86,897	203	87,100	116,284
Attorney	78,550	184	78,734	0
Auditing	46,046	108	46,154	11,550
Physical Examinations	2,254	5	2,259	0
Claims Administration	0	0	0	2,114,941
Total Professional Services	6,229,326	14,585	6,243,911	2,274,181
COMMUNICATIONS				
Postage and Mailing	60,729	142	60,871	66,520
Telephone	7,796	19	7,815	4,407
Printing	23,954	56	24,010	41,103
Total Communications	92,479	217	92,696	112,030
BUILDING AND GROUNDS				
Depreciation	29,797	70	29,867	0
Utilities	21,928	51	21,979	7,530
Maintenance	28,273	66	28,339	0
Rent	0	0	0	8,820
Total Building and Grounds	79,998	187	80,185	16,350
EQUIPMENT				
Depreciation	53,383	0	53,383	0
Maintenance	27,091	63	27,154	0
Rental	77,788	182	77,970	0
Reimbursed Shared Expenses	(49,081)	624	(48,457)	48,470
Loss on Sale of Equipment	163,836	0	163,836	0
Total Equipment	273,017	869	273,886	48,470
TRAVEL AND MEETINGS				
Board Travel and Meetings	9,494	22	9,516	1,082
Staff Meals and Travel	33,451	78	33,529	7,997
State Car	1,926	5	1,931	0
Total Travel and Meetings	44,871	105	44,976	9,079
GENERAL				
Educational Materials	6,983	16	6,999	225
Office Supplies	48,985	115	49,100	21,816
Subscriptions and Dues	6,254	15	6,269	1,165
Miscellaneous	72	0	72	2,059
Total General	62,294	146	62,440	25,265
Total Administrative Expenses	\$ 7,512,434	\$ 17,819	\$ 7,530,253	\$ 2,985,644

See accompanying Independent Auditors' Report

**Missouri State Employees' Retirement System
Internal Service Fund
Ten Year Historical Data**

Ten Years Ended June 30, 1989

Revenues By Source

Fiscal Year	Member Contributions	Investment Income	Employer Contributions	Other	Total
1989	\$ 15,548,221	\$ 898,264	\$ 45,111,161	\$ 23,238,515	\$ 84,796,161
1988	14,744,801	791,492	33,613,800	18,072,125	67,222,218
1987	13,697,408	1,180,017	26,841,381	14,743,260	56,462,066
1986	13,269,215	1,171,325	25,692,367	9,465,907	49,598,814
1985	11,637,144	1,262,153	24,407,725	3,757,028	41,064,050
1984	12,523,067	730,179	27,278,189	2,136,413	42,667,848
1983	10,367,535	643,710	20,125,221	804,458	31,940,924
1982	10,435,639	1,259,285	13,835,468	136,083	25,666,475
1981	8,418,658	1,350,531	13,556,242	0	23,325,431
1980	7,695,707	1,020,303	13,102,650	0	21,818,660

Expenses By Type

Fiscal Year	Medical Claims	Administration	Other	Total
1989	\$ 50,881,898	\$ 2,985,644	\$ 23,122,807	\$ 76,990,349
1988	54,210,305	3,279,229	17,471,794	74,961,328
1987	41,705,334	2,725,664	14,046,802	58,477,800
1986	41,637,796	1,688,469	9,327,275	52,653,540
1985	32,380,372	1,341,813	4,034,152	37,756,337
1984	30,336,073	1,280,426	2,402,108	34,018,607
1983	34,235,254	1,138,745	1,139,458	36,513,457
1982	27,111,914	1,060,485	487,083	28,659,482
1981	24,614,104	819,086	305,000	25,738,190
1980	17,848,536	605,770	432,000	18,886,306

See accompanying Independent Auditors' Report

MOSERS
Investment Summary
 Year Ended June 30, 1989

Type of Investment	July 1, 1988				June 30, 1989		% Total Market	Projected Yield at Market (unaudited)
	Book Value	Market Value	Purchases	Sales and Redemptions	Book Value	Market Value		
Fixed Income	\$ 401,277,870	\$ 405,268,066	\$ 667,758,432	\$ (697,517,342)	\$ 371,518,960	\$ 404,667,531	27.01%	7.16%
Common Stocks	599,625,267	613,621,674	597,992,245	(505,112,507)	692,505,005	779,850,433	52.06%	3.51%
Preferred Stocks	9,125,436	9,603,570	3,042,590	(7,426,843)	4,741,183	3,835,569	0.26%	7.98%
Real Estate								
--Loan & Mort.	23,324,526	26,023,164	0	(535,007)	22,789,519	22,912,105	1.53%	11.23%
--Equity	72,152,516	67,119,624	14,035,339	(702,729)	85,485,127	79,910,048	5.33%	8.27%
Total Real Estate	95,477,042	93,142,788	14,035,339	(1,237,736)	108,274,645	102,822,153	6.86%	9.01%
Venture Capital								
--Limited Partnerships	15,550,791	15,924,699	10,705,579	(331,752)	25,924,617	26,199,273	1.75%	3.84%
Short-term Investments								
--Commercial Paper	140,929,822	140,929,822	2,176,851,018	(2,137,200,404)	180,580,436	180,580,436	12.06%	9.17%
Total Invests.	\$1,261,986,228	\$1,278,490,619	\$3,470,385,202	\$ (3,348,826,584)	\$1,383,544,846	\$1,497,955,395	100.00%	5.48%

ALJRS
Investment Summary
 Year Ended June 30, 1989

Type of Investment	July 1, 1988				June 30, 1989		% Total Market	Projected Yield at Market (unaudited)
	Book Value	Market Value	Purchases	Sales and Redemptions	Book Value	Market Value		
Fixed Income	\$ 868,397	\$ 877,397	\$ (143,205)	\$ 149,587	\$ 874,779	\$ 952,831	26.95%	7.16%
Common Stocks	1,297,398	1,327,682	2,195,683	(1,854,651)	1,638,430	1,845,085	52.19%	3.51%
Preferred Stocks	19,745	20,780	5,955	(14,536)	11,164	9,032	0.26%	7.98%
Real Estate								
--Loan & Mort.	49,376	55,089	0	(2,022)	47,354	47,485	1.34%	11.23%
--Equity	157,206	146,240	53,038	(2,656)	207,589	194,295	5.50%	8.27%
Total Real Estate	206,582	201,329	53,038	(4,677)	254,943	241,780	6.84%	9.01%
Venture Capital								
--Limited Partnerships	33,647	34,456	28,271	(876)	61,042	61,689	1.74%	3.84%
Short-term Investments								
--Commercial Paper	304,927	304,927	6,602,811	(6,482,543)	425,195	425,195	12.03%	9.17%
Total Invests.	\$ 2,730,696	\$ 2,766,571	\$ 8,742,554	\$ (8,207,697)	\$ 3,265,553	\$ 3,535,612	100.00%	5.48%

See accompanying Independent Auditors' Report

Note: Due to space limitations and printing costs, a detailed listing of the investment holdings and transactions could not be provided in this annual report; however, the detailed reports are available for review as an appendix to this report at the MOSERS' Office.

Internal Service Fund Investment Summary

Year Ended June 30, 1989

Type of Investment	July 1, 1988				June 30, 1989		% Total Market	Projected Yield at Market (unaudited)
	Book Value	Market Value	Purchases	Sales and Redemptions	Book Value	Market Value		
Fixed Income								
-Treasury Bonds, Notes, Bills	\$ 0	\$ 0	\$ 10,926,612	\$ (2,013,438)	\$ 8,913,174	\$ 9,039,566	45.50%	9.01%
-Government Bonds	2,515,625	2,487,655	499,922	(2,013,438)	1,002,109	990,155	4.98%	7.85%
-Corporate Bonds	2,809,250	2,758,270	2,016,010	(3,315,925)	1,509,335	1,510,325	7.60%	9.77%
Total Fixed Income	5,324,875	5,245,925	13,442,544	(7,342,801)	11,424,618	11,540,046	58.08%	9.01%
Short-term Investments								
-Commercial Paper	3,155,300	3,155,300	85,994,061	(80,820,336)	8,329,025	8,329,025	41.92%	8.82%
Total Investments	\$ 8,480,175	\$ 8,401,225	\$ 99,436,605	\$ (88,163,137)	\$ 19,753,643	\$ 19,869,071	100.00%	8.82%

Pension Trust Funds Ten Largest Investment Holdings

June 30, 1989

Shares	Description	Cost	Market	% of Total Market
116,000	Phillip Morris Companies Inc. Common	\$ 10,845,692	\$ 16,080,500	1.08%
130,600	International Business Machines Corp. Common	15,947,536	14,610,875	0.98
247,900	Tenneco Inc. Common	11,318,089	13,541,538	0.91
243,800	Bristol Myers Co. Common	10,216,432	11,671,925	0.78
187,800	Contel Corp. Common	6,239,509	11,643,600	0.78
260,700	Travelers Corp. Common	9,731,625	10,590,938	0.71
206,400	Southwestern Bell Corp. Common	8,013,858	10,526,400	0.71
165,400	Xerox Corp. Common	9,406,823	10,316,825	0.69
299,800	Oryx Energy Co. Common	8,260,870	10,005,825	0.67
104,500	American Home Products Corp. Common	8,627,639	9,849,125	0.66
Totals		<u>\$ 98,608,073</u>	<u>\$ 118,837,551</u>	<u>7.97%</u>

See accompanying Independent Auditors' Report

Missouri State Employees' Retirement System
Pension Trust Funds
Schedule Of Brokerage Commissions Paid

Year Ended June 30, 1989

Brokerage Firms	Number Of Transactions	Number Of Shares	Commissions Paid	Commissions Per Share
Merrill Lynch Pierce Fenner	1,245	5,016,430	\$ 338,436	\$ 0.07
Goldman, Sachs & Co.	999	3,037,678	134,085	0.04
Alpha Management	162	1,775,050	113,829	0.06
Bridge Trading	731	1,577,204	100,296	0.06
Shearson/American Express	124	1,471,464	93,701	0.06
Prudential Bache Sec.	89	1,325,731	78,566	0.06
Ernst & Co.	402	973,000	73,629	0.08
First Boston Corporation	370	1,254,073	64,215	0.05
Kidder, Peabody & Co. Inc.	148	905,901	59,199	0.07
Salomon Brothers Inc.	80	1,231,133	57,673	0.05
Smith Barney Harris Upham	80	788,400	49,660	0.06
Paine, Webber, Jackson & Co.	70	677,663	45,857	0.07
Oppenheimer & Co., Inc.	54	641,503	43,846	0.07
Sutro & Co. Inc.	321	556,400	38,978	0.07
Drexel Burnham Lambert Inc.	39	562,125	37,855	0.07
Jefferies & Company, Inc.	52	524,400	23,657	0.05
Interstate/Johnson Lane Co.	26	369,500	22,170	0.06
Pershing & Co.	26	367,992	22,080	0.06
Jones & Associates	30	300,000	19,313	0.06
Bear, Stearns & Co.	34	375,100	17,492	0.05
Witter (Dean) Reynolds Inc.	29	174,200	14,476	0.08
Tucker Anthony & R. L. Day	29	385,100	23,106	0.06
Makefield Securities	3	226,000	13,560	0.06
Rochdale Securities Corp.	27	218,500	13,110	0.06
Autranet, Inc.	26	217,500	13,050	0.06
Weeden & Co.	20	201,500	13,048	0.06
Lawrence (Cyrus J.) Inc.	19	187,200	12,517	0.07
Bernstein (Sanford) & Co.	14	206,100	12,426	0.06
Grunial & Co.	13	155,700	11,051	0.07
Montgomery Securities	16	157,700	9,094	0.06
Dominion Securities / Ames	9	137,200	8,232	0.06
Wilshire Associates - NSCC	14	127,600	7,696	0.06
Hambrecht & Quist	13	103,000	7,420	0.07
Boenning & Scattergood Inc.	6	121,600	7,296	0.06
Dillon, Read & Co., Inc.	14	145,663	6,940	0.05
Morgan Stanley & Co. Inc.	15	273,700	6,721	0.02
Securities Settlement Corp.	16	80,400	6,471	0.08
Lynch Jones & Ryan	11	104,800	6,288	0.06
Donaldson, Lufkin & Jenrette	2	100,000	6,000	0.06
First Albany Corporation	11	84,900	5,935	0.07
Mabon, Nugent & Co.	10	77,256	5,930	0.08
Raymond James Associates	7	79,600	5,712	0.07
Purcell, Graham & Co., Inc.	16	87,300	5,238	0.06
Other	358	3,274,733	122,888	0.04
Totals	5,780	30,657,999	\$ 1,778,742	\$ 0.06

See accompanying Independent Auditors' Report

Missouri State Employees' Retirement System

Pension Trust Funds Investment Service Fees

Year Ended June 30, 1989

Investment Advisors' Fees	
Fixed Income Managers	\$ 807,270
Equity Managers	2,959,642
Real Estate Managers	816,711
Venture Capital Managers	<u>722,748</u>
Total Investment Managers' Fees	5,306,371
Other Investment Service Fees	
Custodian Fees	600,590
Security Lending Fees	<u>122,703</u>
Total Investment Service Fees	<u>\$ 6,029,664</u>

Internal Service Fund Investment Service Fees

Year Ended June 30, 1989

Investment Advisors' Fees	
Fixed Income Manager	\$ 18,660
Other Investment Service Fees	
Custodian Fees	<u>12,746</u>
Total Investment Service Fees	<u>\$ 31,406</u>

See accompanying Independent Auditors' Report

Former home of 33rd President, Harry S. Truman,
located in Independence, Missouri.

Actuarial Section

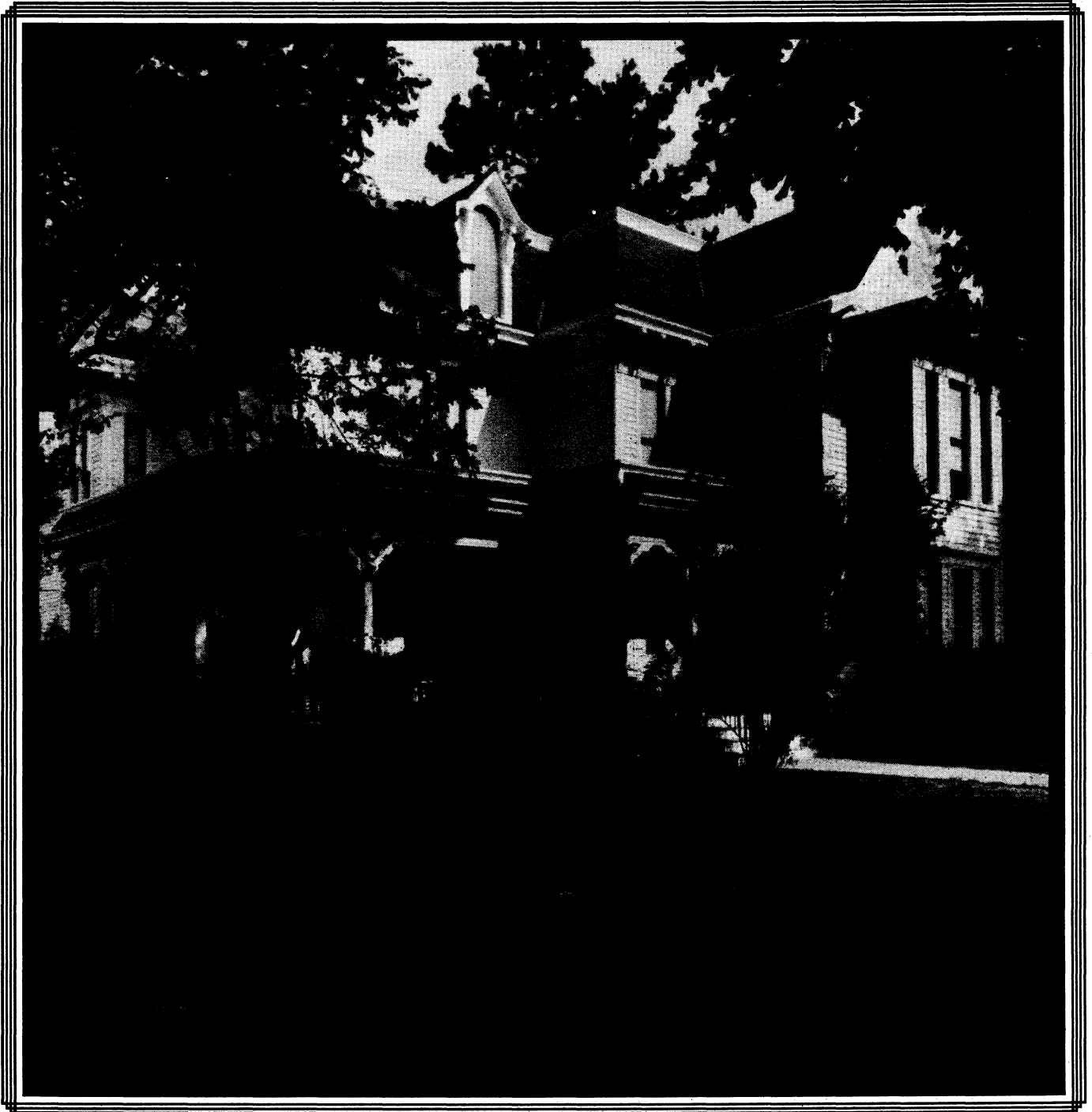


Photo Courtesy of the Missouri Division of Tourism

GABRIEL, ROEDER, SMITH & COMPANY
Actuaries & Consultants

200 Globe Building • 407 East Fort • Detroit, Michigan 48226 • 313-961-3346

Actuary's Certification

November 29, 1988

The Board of Trustees
Missouri State Employees'
Retirement System
Jefferson City, MO 65101

The prime financial objective of MOSERS' has been to establish contribution rates which, expressed as percents of active member payroll, will remain approximately level from generation to generation of Missouri citizens.

In order to determine MOSERS present reserve position and level contribution rates for the future, annual actuarial valuations are made. The latest completed actuarial valuation is based upon data and assumptions as of June 30, 1989. Conditions and results are shown on our report.

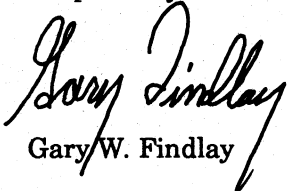
Assumptions concerning future financial experiences are needed for an actuarial valuation. These assumptions are established by the Board after consulting with the actuary. The assumptions are unchanged from a year ago.

Level percent financing was interrupted by a state law enacted in 1988. For the four years beginning with fiscal year 1989 the employer contribution rate has been set at 9.9% of payroll, which is less than the level percent rate.

When level percent financing resumes in four years, the long-term level percent contribution rate will be higher than would have been the case in the absence of the law.

Results of the 1989 actuarial valuation indicated that actuarial accrued liabilities are approximately 80% covered by assets, a very strong reserve position.

Respectfully submitted,


Gary W. Findlay



Richard G. Roeder

Summary of Actuarial Assumptions

Economic Assumptions

1. The investment return rate used in the valuations was 8.0 percent per year, compounded annually (net after investment expenses). This assumption is used to make money payable at one point in time equal in value to a different amount of money payable at another point in time.
2. Pay increase assumptions for individual active members are shown for sample ages on page 48. Part of the assumption for each age is for merit and/or seniority increase, and the other 5.0 percent is for recognized wage inflation. This assumption is used to project a member's current salary to the salaries upon which benefits will be based.
3. The active member payroll is assumed to increase 5.0 percent annually, which is the portion of the individual pay increase assumptions attributable to inflation.
4. The number of active members is assumed to continue at the present number.

Non-economic Assumptions

5. The mortality table, for post-retirement mortality, used in evaluating allowances to be paid was the Unisex Pension 1984 Mortality Table with no age adjustment for men and a six year age setback for women. This assumption is used to measure probabilities of members dying before retirement and the probabilities of each benefit payment being made after retirement.
6. The probabilities of age and service retirement are shown on page 48.
7. The probabilities of withdrawal from service, disability and death-in-service are shown for sample ages on page 48. For disability retirement, impaired longevity was recognized by basing benefit values on an adjusted age midway between attained age and normal retirement age.
8. An entry age normal actuarial cost method of valuation was used in determining liabilities and normal cost. Differences in the past between assumed experience and actual experience ("actuarial gains and losses") become part of actuarial accrued liabilities. Unfunded actuarial accrued liabilities are amortized to produce payments, (principal and interest) which are level percent of payroll contributions.
9. Employer contribution dollars were assumed to be paid in equal installments throughout the employer fiscal year.
10. The data about persons now covered and about present assets were furnished by the System's administrative staff. Although examined for general reasonableness, the data were not audited by the Actuary.
11. The actuarial valuation computations were made by or under the supervision of a member of the American Academy of Actuaries (MAAA).

Summary of Actuarial Assumptions

Percent of Active Eligible Members Retiring Within Year

Retirement Ages	Percent	
	Men	Women
56	2%	2%
58	2	3
60	5	8
62	20	25
64	25	25
66	35	35
68	30	25
70 +	100	100

Withdrawal From Active Employment Before Age & Service Retirement and Individual Pay Increase Assumptions

Sample Ages	Years of Service	<u>% of Active Members Withdrawing within Next Year</u>		Individual Pay Increases
		Men	Women	
all	0	30.0%	28.0%	
	1	18.0	16.0	
	2	15.0	13.0	
	3	12.0	10.0	
	4	10.0	8.0	
20	5+	10.0	8.0	8.0%
30		5.5	5.5	7.5
40		2.0	1.5	6.7
50		1.1	1.0	6.0
60		1.0	.8	6.0

Missouri State Employees' Retirement System
Summary of Member Data Included in Valuations
 June 30, 1989

Active Members

			Group Averages		
Valuation Group	Number	Payroll	Salary	Age (yrs.)	Service (yrs.)
MOSERS					
Regular State Employees	38,938	\$ 752,216,161	\$ 19,318	40.9	8.8
Elected Officials	6	376,013	62,669	46.7	5.7
Legislative Clerks	12	191,702	15,975	38.8	4.7
Legislators	195	4,198,418	21,530	50.6	9.4
Uniformed Water Patrol	67	1,590,745	23,742	35.6	9.5
Conservation	1,077	27,640,389	25,664	40.4	12.8
Contract Employees	3,492	108,956,927	31,202	44.5	10.2
Totals	43,787	\$ 895,170,355	\$ 20,444	41.3	9.0
ALJRS	36	\$ 1,869,790	\$ 51,939	49.6	11.5
NON-FUNDED JUDGES	342	\$ 22,538,205	\$ 65,901	51.5	10.9

Retired Lives

			Group Averages	
Type of Benefit Payment	Number	Annual Benefits	Benefit	Age(yrs.)
MOSERS				
Retirement	10,029	\$ 49,537,824	\$ 4,939	72.5
Disability	341	1,122,468	3,292	58.2
Survivor of Active Member	410	937,620	2,287	61.8
Survivor of Retired Member	310	1,023,528	3,302	71.4
Totals	11,090	\$ 52,621,440	\$ 4,745	71.6
ALJRS	7	\$ 180,204	\$ 25,743	68.6
NON-FUNDED JUDGES	257	\$ 5,469,552	\$ 21,282	74.4

MOSERS
Active Members by Attained Age & Service
 June 30, 1989

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
Under 20	89							89	\$ 1,115,193
20-24	1,863	77						1,940	29,468,184
25-29	3,930	1,178	136					5,244	90,847,961
30-34	3,316	1,815	1,204	86				6,421	120,961,187
35-39	2,767	1,628	1,783	935	72			7,185	148,312,888
40-44	2,325	1,320	1,301	1,335	571	31		6,883	148,502,452
45-49	1,612	955	910	818	666	209	7	5,177	115,452,656
50-54	1,057	719	725	618	594	313	137	4,163	93,015,394
55-59	705	600	602	587	524	338	231	3,587	80,053,941
60	109	78	109	110	83	66	58	613	13,407,966
61	88	89	119	99	85	54	46	580	12,557,969
62	84	86	101	78	68	28	35	480	10,034,320
63	48	80	73	67	46	22	30	366	7,880,716
64	38	44	64	67	50	29	14	306	7,062,151
65	30	42	42	35	39	22	19	229	5,165,898
66	21	28	33	26	23	8	6	145	3,327,476
67	10	20	25	21	15	10	9	110	2,422,486
68	6	16	16	7	11	5	4	65	1,363,595
69	6	10	22	11	15	4	4	72	1,483,458
70 & Over	12	21	33	21	15	16	14	132	2,734,464
Totals	18,116	8,806	7,298	4,921	2,877	1,155	614	43,787	\$ 895,170,355

Averages:

Age 41.3 years
 Service 9.0 years
 Annual Pay: \$20,444

ALJRS
Active Members by Attained Age & Service
 June 30, 1989

Attained Age	Years of Service to Valuation Date							Totals	
	0-4	5-9	10-14	15-19	20-24	25-29	30+	No.	Valuation Payroll
25-29	1							1	\$ 21,119
30-34	1	1						2	104,213
35-39	6	1						7	374,493
40-44	4	1		1				6	297,859
45-49			2	1				3	150,528
50-54	1		1		1			3	141,559
55-59						1	1	2	108,252
61	1				1			2	118,080
62			1					1	53,760
63			1	1	1	1		4	232,272
64				1				1	57,096
65	1							1	49,651
69						1		1	57,096
70 & Over				1	1			2	103,812
Totals	15	3	5	5	4	3	1	36	\$ 1,869,790

Averages:

Age 49.6 years
 Service 11.5 years
 Annual Pay: \$51,939

MOSERS Retirees And Beneficiaries Added And Removed

Ten Years Ended June 30, 1989

	Beginning Balance	Additions	Deletions	Ending Balance
FY 89				
Retirees	9,961	966	553	10,374
Beneficiaries	651	105	36	720
FY 88				
Retirees	9,514	1,322	875	9,961
Beneficiaries	576	96	21	651
FY 87				
Retirees	9,133	749	368	9,514
Beneficiaries	520	81	25	576
FY 86				
Retirees	8,777	765	409	9,133
Beneficiaries	477	60	17	520
FY 85				
Retirees	8,463	692	378	8,777
Beneficiaries	435	51	9	477
FY 84				
Retirees	8,091	711	339	8,463
Beneficiaries	394	57	16	435
FY 83				
Retirees	7,688	761	358	8,091
Beneficiaries	353	50	9	394
FY 82				
Retirees	7,198	813	323	7,688
Beneficiaries	312	55	14	353

Information Prior To Fiscal Year 1982 Not Available

ALJRS Retirees And Beneficiaries Added And Removed

Ten Years Ended June 30, 1989

	Beginning Balance	Additions	Deletions	Ending Balance
FY 89				
Retirees	6	1	0	7
Beneficiaries	0	0	0	0
FY 88				
Retirees	3	3	0	6
Beneficiaries	0	0	0	0
FY 87				
Retirees	1	2	0	3
Beneficiaries	0	0	0	0
FY 86				
Retirees	0	1	0	1
Beneficiaries	0	0	0	0

Plan Established Fiscal Year 1985

Judicial Retirees And Beneficiaries Added And Removed

Ten Years Ended June 30, 1989

	Beginning Balance	Additions	Deletions	Ending Balance
FY 89				
Retirees	153	16	14	155
Beneficiaries	97	13	2	108
FY 88				
Retirees	143	23	13	153
Beneficiaries	88	11	2	97

Information Prior To Fiscal Year 1988 Not Available

Summary Of Accrued And Unfunded Accrued Liabilities

Last Ten Fiscal Years Ending June 30, 1989

MOSERS			ALJRS		
	Accrued	Unfunded Accrued		Accrued	Unfunded Accrued
FY 89	\$ 1,782,125,565	\$ 364,410,031	\$ 6,450,259	\$ 3,101,830	
FY 88	1,569,242,030	313,683,156	5,383,168	2,660,117	
FY 87	1,208,155,321	178,421,133	4,186,361	1,943,283	
FY 86	1,151,141,846	332,769,296			
FY 85	925,360,132	270,502,999			
FY 84	897,551,502	379,573,835			
FY 83	769,024,391	346,008,954			
FY 82	466,039,637	169,203,427			
FY 81	424,187,416	162,812,913			
FY 80	414,805,643	191,312,578			

MOSERS
Total Benefits Payable June 30, 1989
Tabulated by Attained Ages of Benefit Recipients

Attained Ages	Service Retirement		Disability Retirement		Survivors and Beneficiaries		Totals	
	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits	Number	Annual Benefits
Under 20		\$		\$	7	\$ 8,748	7	\$ 8,748
20-24					2	3,612	2	3,612
25-29					1	1,596	1	1,596
30-34			1	1,068	7	27,432	8	28,500
35-39			7	13,116	6	16,764	13	29,880
40-44			13	30,336	17	71,496	30	101,832
45-49			23	66,516	24	76,560	47	143,076
50-54			41	132,852	43	128,580	84	261,432
55-59	261	1,538,760	86	280,296	78	224,664	425	2,043,720
60-64	1,207	7,770,252	157	565,644	117	329,760	1,481	8,665,656
65-69	2,694	13,952,784	12	31,044	133	389,256	2,839	14,373,084
70-74	2,430	11,653,164			120	313,536	2,550	11,966,700
75-79	1,810	7,963,692	1	1,596	91	213,072	1,902	8,178,360
80-84	1,026	4,232,136			58	129,204	1,084	4,361,340
85-89	421	1,799,892			14	23,292	435	1,823,184
90-94	128	456,876			2	3,576	130	460,452
95	18	60,432					18	60,432
96	15	46,308					15	46,308
97	7	22,080					7	22,080
98	4	10,512					4	10,512
99	1	3,900					1	3,900
100	2	4,380					2	4,380
101	3	16,020					3	16,020
102	1	3,108					1	3,108
103	1	3,528					1	3,528
Totals	10,029	\$ 49,537,824	341	\$ 1,122,468	720	\$ 1,961,148	11,090	\$ 52,621,440

MOSERS
Actuarial Present Values
 June 30, 1989

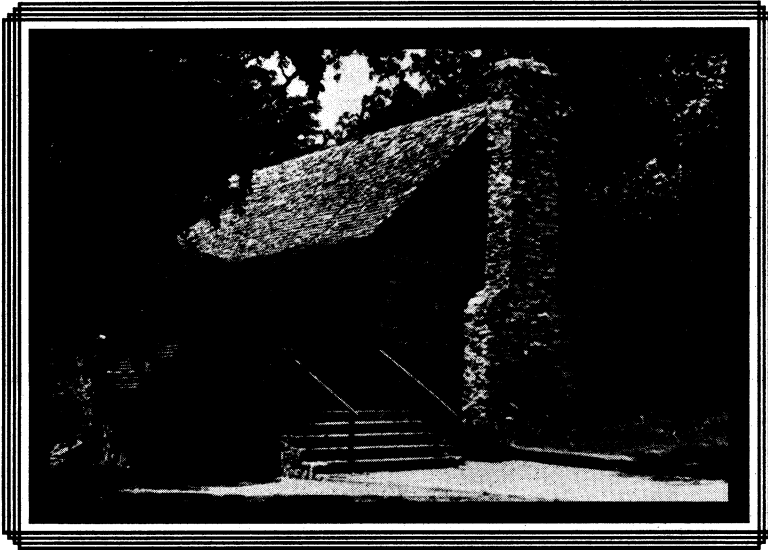
Actuarial Present Value, June 30, of	Actuarial Present Value	Portion Covered By Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active Members			
Service retirement benefits based on service rendered before and likely to be rendered after valuation date	\$ 1,868,744,924	\$ 805,194,752	\$ 1,063,550,172
Disability benefits likely to be paid present active members who become totally and permanently disabled	56,617,466	30,684,163	25,933,303
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	118,852,406	57,136,027	61,716,379
Separation benefits likely to be paid present active members:			
Refunds of member contributions	492,278		
Deferred benefits	181,426,601		
Total	181,918,879	104,749,383	77,169,496
Active Member Totals	\$ 2,226,133,675	\$ 997,764,325	1,228,369,350
Members on leave of absence & LTD:			
Service retirement benefits based on service rendered before the valuation date			18,493,528
Terminated Vested Members:			
Service retirement benefits based on service rendered before the valuation date			43,134,418
Retired Lives			492,128,269
Total Actuarial Accrued Liability			1,782,125,565
Assets Used in Valuation			1,417,715,534
Unfunded Actuarial Accrued Liability			\$ 364,410,031

ALJRS Actuarial Present Values

June 30, 1989

Actuarial Present Value, June 30, of	Actuarial Present Value	Portion Covered By Future Normal Cost Contributions	Actuarial Accrued Liabilities
Active Members			
Service retirement benefits based on service rendered before and likely to be rendered after valuation date	\$ 6,973,493	\$ 2,890,660	\$ 4,082,833
Disability benefits likely to be paid present active members who become totally and permanently disabled	134,547	97,645	36,902
Survivor benefits likely to be paid to widows and children of present active members who die before retiring	385,305	224,768	160,537
Separation benefits likely to be paid present active members	305,902	245,034	60,868
Active Member Totals	\$ 7,799,247	\$ 3,458,107	4,341,140
Members on leave of absence & LTD:			
Service retirement benefits based on service rendered before the valuation date			0
Terminated Vested Members:			
Service retirement benefits based on service rendered before the valuation date			0
Retired Lives			2,109,119
Total Actuarial Accrued Liability			6,450,259
Assets Used in Valuation			3,348,429
Unfunded Actuarial Accrued Liability			\$ 3,101,830

Statistical Section



Left is Old Matt's Cabin near Branson, Missouri. The cabin has been featured in movies, TV shows, magazine and newspaper articles, and it is the most widely photographed building in Mid-America. During the 1880s, when the cabin was built, it was one of the finest examples of a pioneer home. Harold Bell Wright, a popular writer, often visited the home and based several characters in his book, *Shepherd of the Hills*, on the family who lived there.

Below is the boyhood home of Mark Twain located in Hannibal, Missouri. The home is now a museum for visitors to view the setting as described in two of Twain's most famous books, *Tom Sawyer* and *Huckleberry Finn*.



Photos Courtesy of the Missouri Division of Tourism

Missouri State Employees' Retirement System
Benefit Expenses by Type
Last Ten Fiscal Years

Ending June 30, 1989

	FY 89	FY 88	FY 87	FY 86	FY 85
Retirement	\$ 44,961,595	\$ 30,597,097	\$ 20,206,526	\$ 17,555,999	\$ 15,271,986
Survivor	1,653,244	1,365,209	1,097,245	921,403	770,414
Disability	1,210,440	1,767,075	1,333,313	1,334,181	1,196,489
Nonfunded	0	4,703,479	11,160,433	7,706,443	6,852,613
Judges	5,142,127	4,380,973	3,572,635	2,969,364	2,728,581
Legislators	714,248	617,267	505,894	340,393	264,663
Admin. Law Judges	163,327	104,757	52,983	11,412	0
	FY 84	FY 83	FY 82	FY 81	FY 80
Retirement	\$ 13,416,391	\$ 11,488,165	\$ 9,589,627	\$ 8,066,358	\$ 10,529,754
Survivor	659,585	539,286	446,890	382,830	326,549
Disability	1,054,161	961,969	853,553	701,130	874,246
Nonfunded	5,632,780	5,267,274	4,877,446	4,953,102	0
Judges	2,507,052	2,343,787	2,170,611	2,014,547	2,522,279
Legislators	180,859	135,035	100,458	79,028	0
Admin. Law Judges	0	0	0	0	0

MOSERS
Benefits Payable June 30, 1989
Tabulated by Option and Type of Benefit

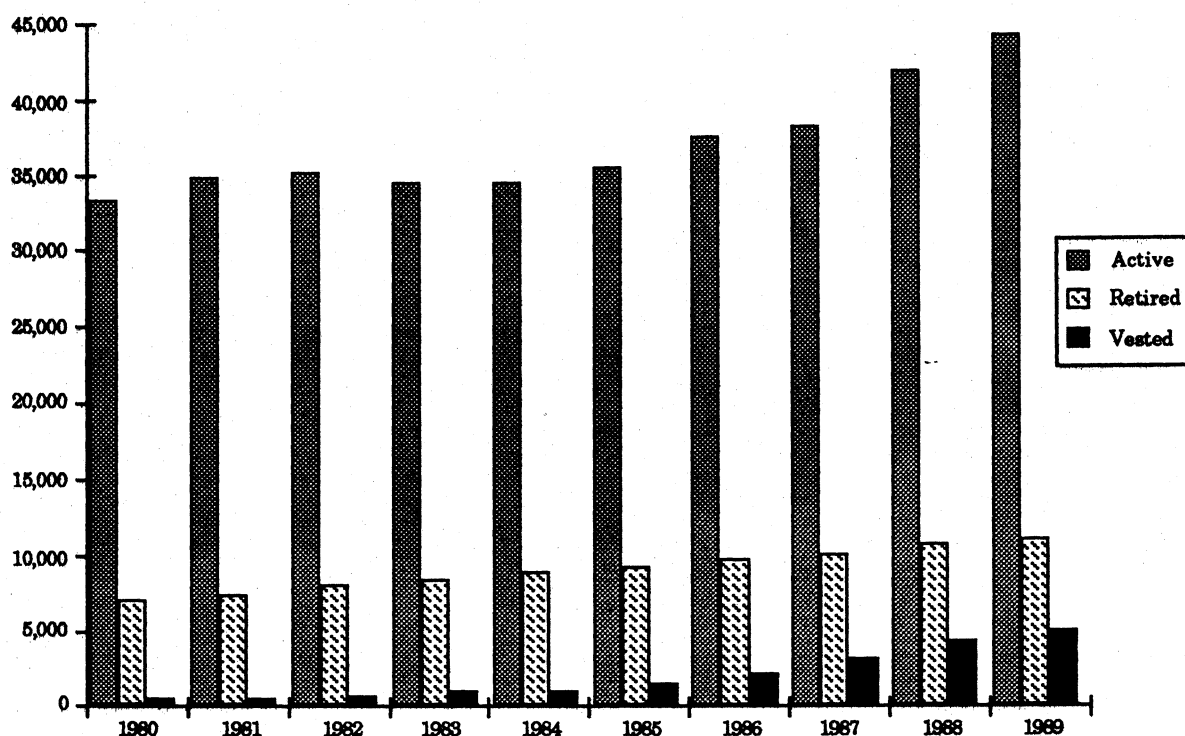
Type of Benefit	Number	Annual Funded Benefits	Average Annual Benefit
Service Retirement			
Normal Annuity	8,699	\$ 40,222,392	\$ 4,624
50% Joint and Survivor	342	3,364,632	9,838
75% Joint and Survivor	31	205,440	6,627
100% Joint and Survivor	827	5,055,180	6,113
5 Year Certain and Life	57	337,200	5,916
10 Year Certain and Life	73	352,980	4,835
Survivor Beneficiary	310	1,023,528	3,302
Total	10,339	50,561,352	4,890
Disability Retirement	341	1,122,468	3,292
Death-in-Service	410	937,620	2,287
Grand Totals	11,090	\$ 52,621,440	\$ 4,745

Average Monthly Benefit Amounts

Five Years Ending June 30, 1989

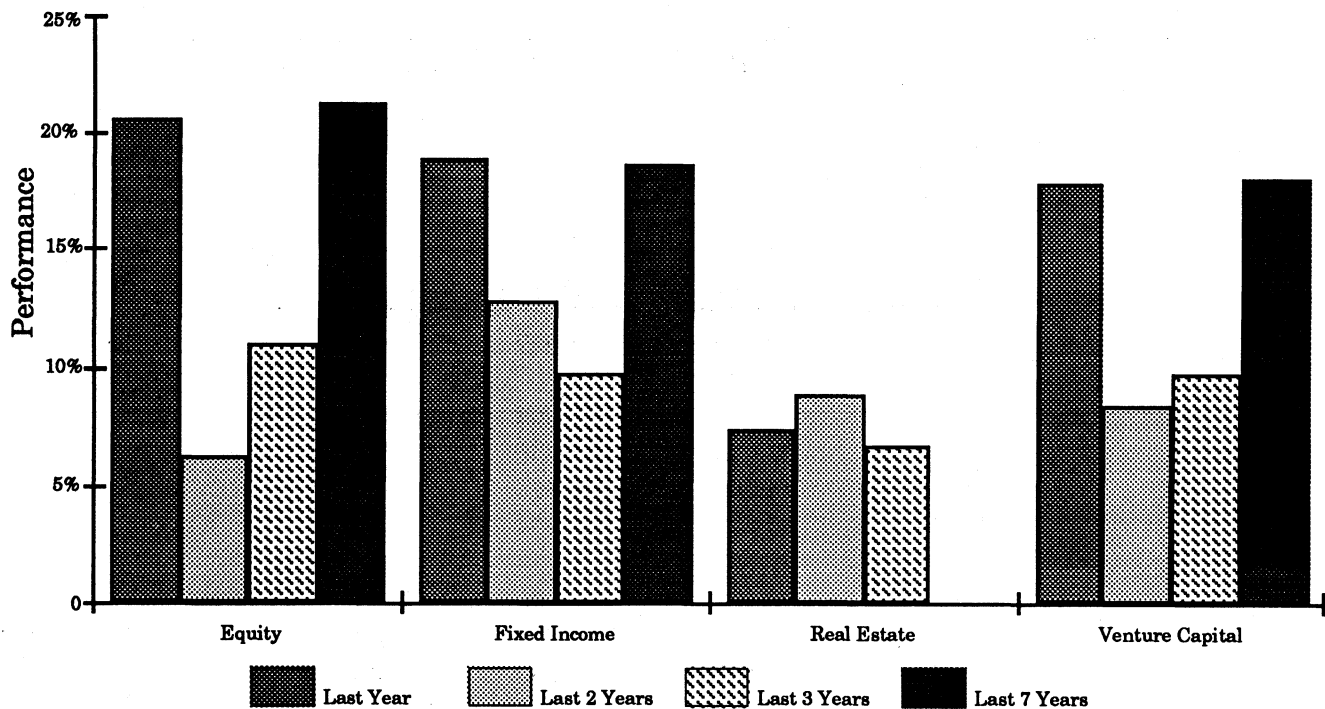
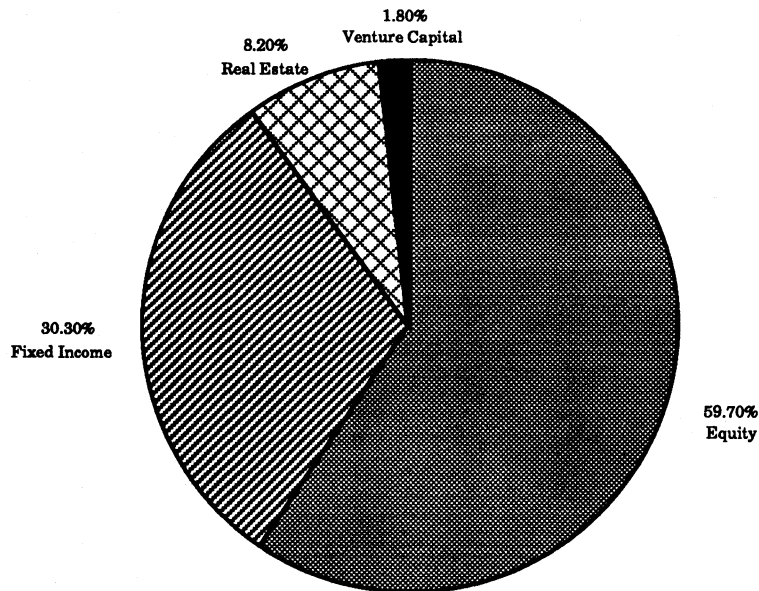
	FY 89	FY 88	FY 87	FY 86	FY 85
REGULAR					
Member	384	331	314	263	244
Survivor	205	194	181	167	147
Disability	265	238	205	168	156
JUDGES					
Member	2,275	2,107	1,845	1,495	1,375
Survivor	722	690	643	611	550
Disability	2,557	2,549	0	2,812	2,604
LEGISLATORS					
Member	878	850	883	643	623
Survivor	319	299	234	248	239
ADMIN. LAW JUDGES					
Member	2,094	2,049	1,867	2,295	0

MOSERS Plan Membership Last Ten Fiscal Years



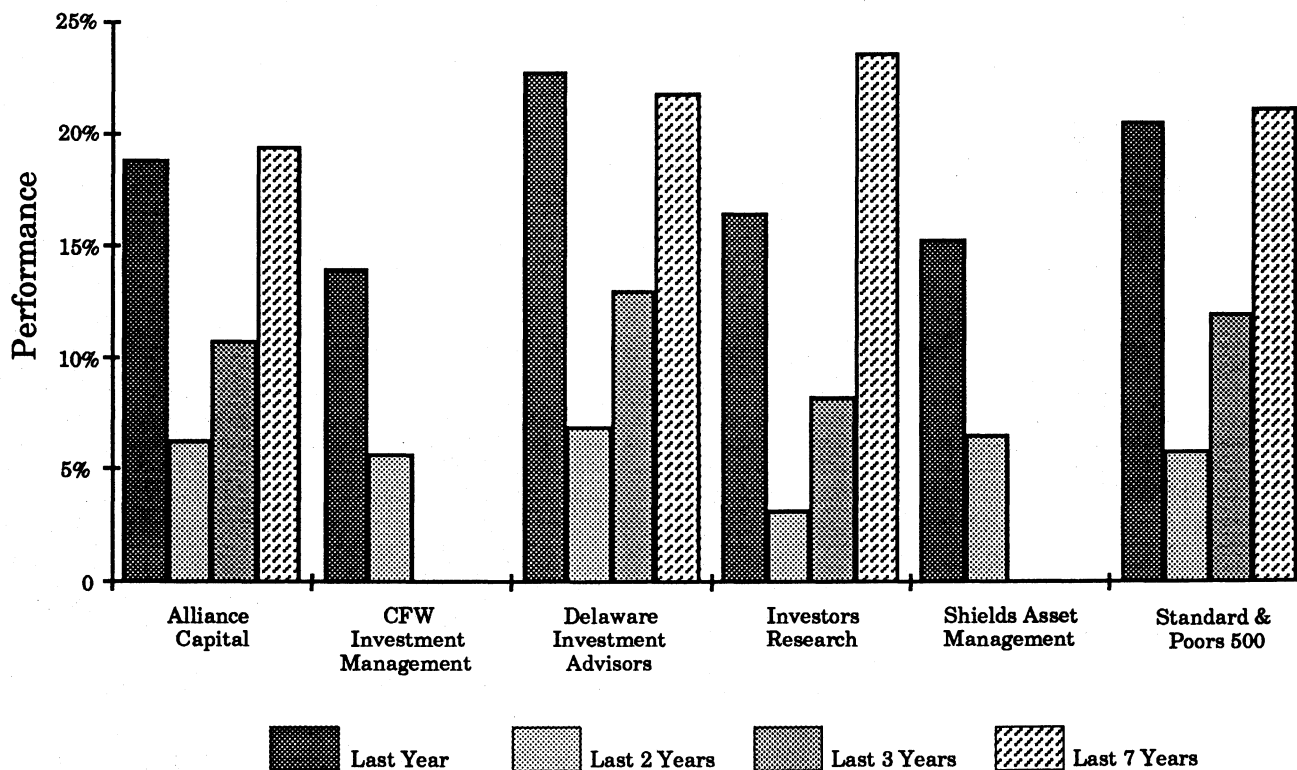
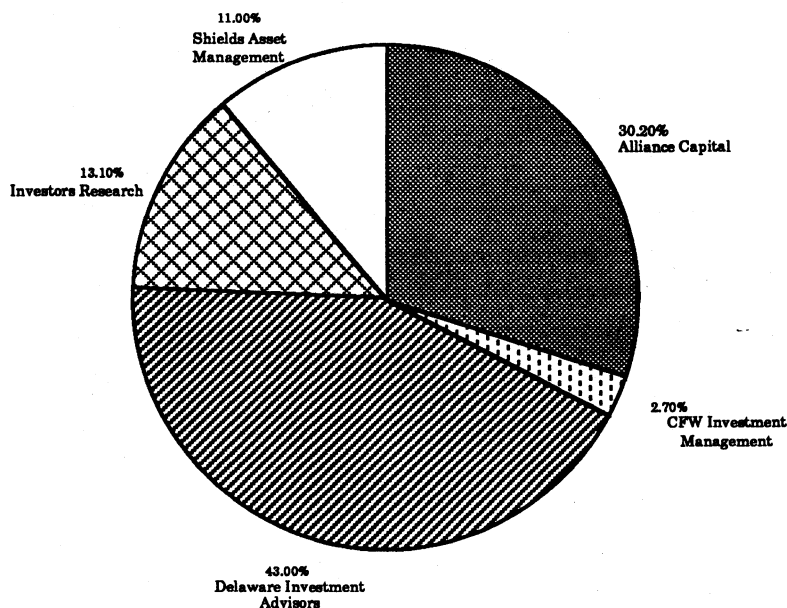
Fiscal Year	Active	Retired	Vested
1980	33,348	7,085	475
1981	34,762	7,409	517
1982	35,089	8,064	600
1983	34,468	8,436	994
1984	34,505	8,898	1,056
1985	35,575	9,254	1,442
1986	37,552	9,653	2,131
1987	38,174	10,090	3,200
1988	41,944	10,612	4,356
1989	43,787	11,090	4,997

Missouri State Employees' Retirement System
Pension Trusts Total Fund Diversification
Year Ended June 30, 1989



Missouri State Employees' Retirement System Pension Trust Funds' Equity Diversification

Year Ended June 30, 1989



**Missouri State Employees' Retirement System
Pension Trust Funds' Fixed Income Diversification**
Year Ended June 30, 1989

